Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 13, 2019 1:55 PM
To: Ramos, Ricky
Subject: FW: Shopoff meeting today

Importance: High

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Gary Tarkington <garytarkington@msn.com>
Sent: Tuesday, August 13, 2019 1:37 PM
To: commission@surfcity-hb.org
Subject: Shopoff meeting today
Importance: High

To the Planning Department of Huntington Beach,
Today August 13, 2019, you, the city Planning Department will be reviewing the Shopoff EIR, and asking our city to throw out its voted and approved General Plan and Zoning to build a outside investors development to gain profits for his investors.
This has got to be a diffinate NO!! This was ALREADY VOTED ON!! We DO NOT WANT OR NEED THIS!!!
The people of HB are watching this and you closely!
Ann Tarkington
Huntington Beach

From: Gary Tarkington <garytarkington@msn.com>
Sent: Monday, July 22, 2019 1:45 PM
To: ursula.luna@surfcity-hb.org
Subject: SHOPOFF BUILDING!!
Importance: High

This has been brought to all of the citizens of Huntington Beach. WE DO NOT WANT THIS!!! A Meeting on July 23rd Tomorrow A out of city developer Shopoff is petitioning our Community Development Department to change our General Plan and Zoning to build a huge project on the banks of our protected wetlands off Magnolia and PCH. His plan only supports his investors and adds to the over development and over crowding in our community. Our General Plan was last amended in Oct 2017 and is set until 2040. The General Plan is the fundamental policy document guide to determine the Appropriate Physical Development and Charter of the Huntington Beach 25 year planning horizon. As this Plan Stands this project is NOT allowed and we shall not use a Specific Plan to override our set plan that has been through the approval process. While some of our city council members have accepted huge payments and support from this developer to support his investors profits (Michael Posey - Barbara Delgleize and Patrick Brenden) we must make our voices heard.
I WANT MY VOICE TO BE HEARD! NO, NO, AND, NO! THIS MUST not BE PASSED/CONSIDERED!!
Ann Tarkington
Huntington Beach

Carolyn “Shammy” Dingus
Magnolia/Atlanta, HB
shammyds@mac.com

MTF Simply Not Suitable for Residential Use

- The MTF soil remains contaminated with toxic tases. These are most significant health risk associated with the petroleum contamination.The migration of hazardous vapors into building structures poses a serious hazard to the occupants.
- The volatile organic compounds (VOCs) can build up beneath the foundations of the building, concentrate, and subsequently leak inside the interior.
- A full assessment of VOCs needs to be completed in areas of known contamination and planned development; this has not been done at this property.

Inadequacy and Errors in Soil Gas Testing

- The 2016 tests are inadequate, specifically due to the limited number of soil gas samples (in consideration of the size of the property), and their locations **OUTSIDE** of areas of **known soil contamination**.
  - total of 23 soil gas locations have been sampled at the property; **this is less than one per acre,**
  - The soil gas samples were **NOT** collected the areas of the three (3) former tanks or piping **which have been documented with contamination**.
  - **Testing in 2013 showed multiple VOCs exceeded regulatory screening levels,** including: *benzene, ethylbenzene, naphthalene, chloroform, 1.3.5-trimethylbenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene*
  - **The 2016 test** consisted of only 8 samples, and **only** tested for Methane.
  - The recommended sampling on a grid basis has not been performed
  - The lab results were not consistent with field results
  - Huntington Beach City Specification 429 requires methane testing at a distance of 1,000 feet from landfills and 100 feet from abandoned oil wells

Errors in Human Health Hazard Assessment

- The use of a .001 attenuation faction in the vapor in intrusion risk **is not appropriate for this site!**
  - Current 2015 EPA guidance and DTSC HERO Note #3 recommends an attenuation factor of **0.03**, **OVER AN ORDER OF MAGNITUDE LESS!**

- The formula in question is used to evaluate the **CANCER RISK** for the area. Obviously the accuracy is absolutely CRITICAL.
- Chemicals that were detected, but did not exceed published regulatory screening levels, were excluded from the HHRA

2018 Groundwater Monitoring Well Sampling

- The three groundwater monitoring wells **were NOT installed within the "down gradient" of the known areas of contamination!**
- None of the wells were installed in the areas of former tanks, oil wells, or piping
- The groundwater flows toward the northeast corner of the property. **NO wells were installed in this location!**

Regulatory Framework

- The regulatory oversight for the property is unclear,
- It is not understood why the Huntington Beach Fire Department **MAY** have been designated the lead agency.
  - The HBFD has stated that the contamination is beyond the limits of the HBFD jurisdiction, and that the DTSC and potentially other regulatory agencies should have the status as the lead agencies.
    - The HBFD and Shopoff have subsequently agreed that the DTSC is the lead agency for the site.
    - BUT he site is not listed on either the Envirostar or DTSC websites!
    - The inconsistent regulatory oversight of the property may have resulted in previously identified data gaps and subsequent recommendations not being addressed.

SUMMARY:

APPROVING THIS SITE POSES AN UNACCEPTABLE RISK OF LIABILITY FOR THE CITY OF HUNTINGTON BEACH

All progress on approving the changes to the city's General plan, rezoning, and Local Coastal plan MUST BE STOPPED IMMEDIATELY.

From: Dan Jamieson <broker_advocate@hotmail.com>
Sent: Monday, July 22, 2019 2:29 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: comment, re July 23 study session, tank farm

July 23, 2019

Dear Planning Commission:

I urge the Commission to seriously consider rejecting the proposed zoning change on the Magnolia tank farm property, and keep the property as industrial use.

The proposal would allow 65% of the site to be developed as medium-density residential, and another 15% as visitor-serving. Yet, the property is immediately adjacent to the power plant and the Ascon site, not a suitable location for residential or visitor-serving. Additionally, the proposed higher-density residential does not fit with the nearest lower-density residential. Further, given the risk of sea-level rise, further intense residential development along the coast does not seem wise.

Sincerely,

Dan Jamieson
Huntington Beach

-----Original Message-----
From: Darlene Butscher <darlenebutscher@yahoo.com>
Sent: Monday, July 22, 2019 3:37 PM
To: Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>
Subject: Opposed to Magnolia & PCH development

I am opposed to the Community Development Department changing our General Plan and Zoning to build a project on the banks of our protected wetlands off Magnolia and PCH. My understanding is that as this Plan Stands this project is NOT allowed and we shall not use a Specific Plan to override our set plan that has been through the approval process.

Please let me know if that is not the case.

We do not need the extra congestion around PCH. We have sufficient local businesses that are not thriving and we don't need this to detract from them.

Thank you

Darlene Butscher
221 Hartford Ave
HB 92648

Work Order: #149599

Opened: 03/30/2019

Closed: --

This issue is assigned | Est. Resolution Date: Not Yet Set

Planning

STREET ADDRESS

☒

By : Deryl Robinson

Email : derylrobinson@outlook.com

Phone : 949-637-2607

Device :

Media Submitted
None

COMMENTS & ADDITIONAL NOTES

Tank Farm - I am in favor of the development. I prefer no hotel. If a hotel is required make it as small as possible, and not over 3 stories.

Notes Added By staff: 04/03/2019 8:20 AM — **Tania Moore**

Hi Jane, Would this go to Ricky?

Share with Citizen: NO

Assigned Worker: 04/03/2019 8:19 AM — **Tania Moore**

Workorder #149599 has been assigned to Jane James.

Share with Citizen: NO

Assigned Worker: 04/02/2019 4:04 PM — **Robin Estanislau**

Workorder #149599 has been assigned to Tania Moore.

Share with Citizen: NO

Issue Type/Subtype Changed: 04/02/2019 4:02 PM — **Robin Estanislau**

Workorder #149599 Issue type changed from Agenda & Public Hearing Comments to Planning.

Share with Citizen: NO

Notes Added By staff: 04/02/2019 4:02 PM **Robin Estanislau**

Your comments have been forwarded to the staff planner on this project, Ricky Ramos.

Share with Citizen: YES

Status Changed: 04/01/2019 8:49 AM **Johanna Dombo**

Work Order #149599 status has changed from new to assigned.

Share with Citizen: NO

Issue Type/Subtype Changed: 04/01/2019 8:49 AM **Johanna Dombo**

Workorder #149599 Issue type changed from City Council to Agenda & Public Hearing Comments and subtype City Council Meeting.

Share with Citizen: NO

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 13, 2019 9:26 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm EIR Study . . .

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Gino J. Bruno <gbruno@socal.rr.com>
Sent: Monday, August 12, 2019 5:53 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>
Subject: Magnolia Tank Farm EIR Study . . .

Planning Commissioners:

Regarding the Magnolia Tank Farms EIR . . .

Among other problems, the ingress and egress for all of the traffic generated by this proposed development (250 houses [how many cars per household?], 175-room hotel, 40-room hostel, plus retail/dining) will be only on the East side of the development, and only at two points: (a) Magnolia & Banning, and (b) Magnolia & Bermuda Drive.

That's it, people . . .

A bad plan . . . that will not get better.

Just ask a fifth grader if this would be good for our City.

Gino J. Bruno
Huntington Beach

From: Gino J. Bruno <gbruno@socal.rr.com>
Sent: Monday, July 22, 2019 1:51 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>; Villasenor, Jennifer <JVillasenor@surfcity-hb.org>
Subject: Magnolia Tank Farm Project (Shopoff)

Planning Commissioners:

With respect to the proposed Magnolia Tank Farm development (the Shopoff project) that you will be "previewing" tomorrow afternoon, I urge you to look carefully and critically at the proposal, especially the traffic circulation aspect.

According to the developer's narrative dated January 2019, there will only be two points of ingress and egress for the entire project (yes, for the traffic generated by 250 dwelling units – with how many cars per unit? - , a 175-room Lodge, a 40-room hostel, and various retail and other commercial in the 29 acres) both of which entrances and exits would be on Magnolia, with one at Banning, and the other at Bermuda.

There could be no question in anyone's mind that this proposal would negatively and adversely impact current local residents, as well as our residents and visitors in general who traverse the area.

When the time comes for you to vote, I urge you to DENY this project.

Thank you.

Gino J. Bruno
Huntington Beach

HUNTINGTON BEACH
WETLANDS CONSERVANCY
A Nonprofit Corporation
www.hbwetlands.org

21900 Pacific Coast Highway
Huntington Beach, CA 92646
(714) 536-0141

SLF – HB Magnolia, LLC
2 Park Plaza, Suite 700
Irvine, CA 92614

November 5, 2018

RE: Collaboration between the Conservancy and Shopoff Realty Investments – Tank Farm Project

To Whom It May Concern,

The Huntington Beach Wetlands Conservancy (Conservancy) is a volunteer-led organization with a board of directors and an executive director. The goal of the Conservancy is to acquire, restore, and protect the coastal wetlands of Huntington Beach between Beach Boulevard and the Santa Ana River. The Conservancy annually reviews its plans to set its strategic direction (including defining programs), long-term funding needs to support wetlands management, interpretative programs, staffing, etc.

The Conservancy is aware that Shopoff Realty Investments (SRI), on behalf of SLF – HB Magnolia, LLC, has submitted applications to the City of Huntington Beach for the Magnolia Tank Farm Project. It is our understanding that the Magnolia Tank Farm Project proposes a Specific Plan, as explained to the Conservancy and detailed in the application submitted to the City of Huntington Beach as of February 13, 2017, to redevelop the property with a wetlands-themed boutique lodge with visitor serving commercial, residential uses and open space.

Due to the proximity of the now-restored Magnolia Marsh, and the soon to be restored Upper Magnolia Marsh (the "Magnolia Marsh") to the Tank Farm Property, development pursuant to the proposed Specific Plan will provide an opportunity for coastal visitors and residents to enjoy views of the Magnolia Marsh wetlands and also provide opportunities for wetland stewardship, educational and outreach programs. The Conservancy believes such programs will greatly enhance the coastal visitor experience. The Tank Farm Property bordering the HBFC Channel would also expand scientific observational opportunities for Magnolia Marsh, thereby encouraging the study of the Magnolia Marsh, a valuable wetlands resource.

SRI and the Conservancy have been engaged in discussions aimed at developing a detailed wetlands interpretive program that expands the Conservancy's existing offerings. Discussions regarding a possible controlled access point and expanding the existing docent-led tour program are in the works. The objectives are to expand public access and to develop educational programs in a manner that will insure the protection and preservation of the Magnolia Marsh as a wetlands resource. We are confident that we will achieve the stated objectives.

Best Regards,

Gordon W. Smith, PhD , Chairman, Board of Directors

Ramos, Ricky

From: De Coite, Kim
Sent: Monday, April 22, 2019 9:40 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

Kimberly De Coite
Administrative Assistant
Department of Community Development
714-536-5276
kdecoite@surfcity-hb.org

From: Dombo, Johanna <Johanna.Dombo@surfcity-hb.org>
Sent: Monday, April 22, 2019 9:37 AM
To: De Coite, Kim <KDeCoite@surfcity-hb.org>
Subject: FW: Magnolia Tank Farm

Has this gone to the planning commission? Or should I forward these to you?

Johanna Dombo
Executive Assistant
Office of the City Manager, City of Huntington Beach
714.536.5575
Johanna.dombo@surfcity-hb.org

From: Jason Shelton <Jason_shelton@outlook.com>
Sent: Thursday, April 18, 2019 10:34 PM
To: CITY COUNCIL <city.council@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Magnolia Tank Farm

Hello City Council members-

My name is Jason and I live in Seabury south neighborhood adjacent Edison park and behind the power plant (Newland/Hamilton). I grew up in this neighborhood and am now a long time homeowner with kids in local schools. I am also a Vice President at Boardriders, based in Huntington Beach.

I am writing to express my deep concerns and desire not to have more high density housing, hotels and retail at the Tank Farm site. The infrastructure can not absorb more traffic, parking, and lack of homeless support.

The area is inundated with industrial, homeless, traffic, lack of parking, noise and traffic from beach concerts, etc as it is. We have much more work in these areas to do before we further exacerbate the problems.

I very much wish to raise my family here, but the area is on the brink of being too much to bare as it is with the current issues.

Please do not approve high density housing, hotels or retail at that site.

Thank you very much for reading. I am happy to discuss in detail if you would like as well.

Best regards,

Jason Shelton
jason_shelton@outlook.com

Get Outlook for iOS

Ramos, Ricky

From: James, Jane
Sent: Wednesday, July 24, 2019 1:16 PM
To: Ramos, Ricky
Subject: FW: Opposed to Magnolia &PCH

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Jeff Wilmot <surfbumtwo@gmail.com>
Sent: Tuesday, July 23, 2019 5:06 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Opposed to Magnolia &PCH

I am opposed to the Community Development department changing our GERNAL PLANSand zoning to a project on our wetlands!!!!!!!!!! Alsolutely OPPOSED!!!! Our city has gotten too CONGESTIVE!!! Full of SOBER LIVINGS; HOMELESS, We need more sidewalks, 4 ways stop signs, parks INSTEAD more shopping centers which means more bars and OVER CONGESTIVE!!!!!
Thank You

Ramos, Ricky

From: jenny pritchett <jennypritchett1@gmail.com>
Sent: Sunday, March 31, 2019 8:20 PM
To: Ramos, Ricky
Subject: Magnolia and Hamilton

This is a duplicate message from a different email address I use more regularly. See below:

I understand you are the planner in charge of the Magnolia and Hamilton Ascon project clean up and future development. I do not have a problem with the building of hotels, retail, homes, etc and if I do, I know I can move. However, what I do have a problem is that someone, sometime in the past before the clean up began, did not think about the wildlife that was being displaced. Because of that, our neighborhood (Fashion Shores) has a problem with coyotes.

Last Monday morning approximately 5:30 am I let my three dogs out in MY fully fenced backyard. It was dark but I found that peaceful, until now. With my dogs still out back, I turned to my left after hearing a noise and a coyote stood about six feet from me and my dogs. It had jumped over the fence. I made so much noise I scared it away and woke up every neighbor around me. My dogs were not hurt but easily could have been.

I also used to regularly walk my dogs after work in the dark with no issue. About a year ago I stopped after my second encounter with a coyote.

I am contacting you because now I am anxious when I let my dogs in the backyard after dark. I try to limit this practice but they are dogs and need to go out. This is property I am paying taxes on but no longer enjoy after dark because I'm worried about my dogs. So, to help ease my mind while I am at work or if the dogs must go out during the night I constructed a covered dog run that can be accessed through the dog door. Sometimes a dog needs to go out after midnight and normally I had no problem letting the dog out but now I do.

Therefore, because this is the result of poor planning and follow up, I expect the city to cover the costs associated with creating this dog run. I never would have built it otherwise since it limits what the dogs can do outside during the day. I am not a believer in caging dogs but for their own protection I've done it.

I will gladly send you the bills for the materials I used for this project. I am not billing you for my time but should. This is a multi-million dollar project and yes, I am a taxpayer and feel I should be safe on my property. Since obviously I am not, I expect to be reimbursed for what I paid to help keep me and my dogs safe.

Jenny Pritchett
21601 Bahama Lane

Ramos, Ricky

From: James, Jane
Sent: Wednesday, July 24, 2019 1:19 PM
To: Ramos, Ricky
Subject: FW: HDD

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

-----Original Message-----
From: Kathleen Brown <heykathybrown@gmail.com>
Sent: Tuesday, July 23, 2019 10:38 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: HDD

PLEASE FIGHT ALL HDD in our city and EXPOSE those who take money from developers!! We are sick of our city being ruined!

Thank you.

Sent from my iPhone

Ramos, Ricky

From: De Coite, Kim
Sent: Monday, May 06, 2019 10:10 AM
To: James, Jane; Ramos, Ricky
Subject: FW: Rezoning of Magnolia Tank Farm Area

Kimberly De Coite
Administrative Assistant
Department of Community Development
714-536-5276
kdecoite@surfcity-hb.org

From: Dombo, Johanna
Sent: Monday, May 06, 2019 9:54 AM
To: De Coite, Kim <KDeCoite@surfcity-hb.org>
Subject: FW: Rezoning of Magnolia Tank Farm Area

Forwarding…

Johanna Dombo
Executive Assistant
Office of the City Manager, City of Huntington Beach
714.536.5575
Johanna.dombo@surfcity-hb.org

From: Kathleen <saab900se@gmail.com>
Sent: Friday, May 03, 2019 8:15 PM
To: CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Rezoning of Magnolia Tank Farm Area

Dear HB City Council Members:

This is a request of the City Council to vote NO on the proposed rezoning for the Magnolia Tank Farm Development Project.

I have owned my home in the southeast corner of HB since 1978. In those days, Magnolia dead ended at Banning. There was a dirt footpath to the beach from Banning to PCH. Now Magnolia passes right through the wetlands as a four lane divided concrete road and ends at PCH.

The development of the Magnolia Tank Farm just off Magnolia and Banning, proposes a marsh buffer between it and the wetlands. They propose to build: 211,000 s.f. lodge, 19,000 s.f. of retail, 250 for sale dwelling units with a density of 15/acre.

BUT a marsh buffer does not protection make. Mother Nature is stronger and more unpredictable than we humans seem to recognize. In addition to the memorable Exxon Valdez and the BP spills, we have had oil spills here in HB. In all those occasions, we thought we had built in protections - even redundancies. But things go

wrong. And disasters occur. And damage is irreversible. With medium density housing comes sewer lines, electric and gas infrastructure. None of which can be 100% guaranteed against leakage or damage to the environment. The proposed project lies on an earthquake fault line and the soil is subjected to liquefaction in the event of a quake. The company cites three barriers as follows (their wording p3-5 from the Magnolia Tank Farm Specific Plan Project Report): "Currently, there are three barriers, both natural and man-made, between Magnolia Marsh and the western edge of the project site: the flood control channel open water area integrated with the adjacent sub- and inter-tidal (meandering shallow channels) and non-tidal marsh (pickle weed and dunes) components act as an aquatic barrier; the vertical sheet pile wall of the channel; and the adjacent channel maintenance road and existing fence."

Which of those would you trust your families safety and security with in the event of an earthquake? Which of these would provide 100% protection of the wetlands. The flood control channel? The pickle weed and dunes? Or perhaps the maintenance road and existing fence?

And there is no buffer for noise included anywhere in this project. You cannot say, oh the noise will be time limited and think that damage does not occur. The wildlife in the wetlands is sensitive to noise as well. We act as if that does not matter but noise levels have a disastrous effect on the health and propagation of wildlife.

Let this City Council's legacy be that they recognized the uniqueness and vulnerability of the HB wetlands and had the courage to take the appropriate course of action to further enhance its protection: say NO to added development on land that abuts this extremely sensitive environment; say NO to proposals that would produce medium density housing and a hotel, increase traffic, increase gas and electric infrastructures, produce extremely loud and long noise, increased dust, and create further parking congestion.

Thank you for your time.

Sincerely
Kathleen Mooney
22022 Hula Circle
Huntington Beach CA 92646
Tele: 714-963-0528
Email: saab900se@gmail.com

Do not use my contact information for any other purpose. Thank you.

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 13, 2019 2:20 PM
To: Ramos, Ricky
Subject: FW: Shopoff EIR Deny this Project.

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: larry mcneely <lmwater@yahoo.com>
Sent: Tuesday, August 13, 2019 2:19 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Shopoff EIR Deny this Project.

I watched the last planning meeting on Shopoff, What I find surprising in those conversations was the language in the questions like "when you build" etc like the approval was was a drawn conclusion. The questions should be framed as "If this was approved" "if the community backs this" I find no community benefit and thus no reason to grant a change in our approved and voted General Plan and Zoning. As the EIR concludes there many reasons to deny Traffic Congestion, Water Usage during droughts, Taxing our services and adding to the Waste Treatment Plants load. Not to mention the future city liabilities for the Toxic claims that are sure to arise. Listen to our community and the surrounding neighbors and Deny this investors Ponzi Scheme.

From: larry mcneely <lmwater@yahoo.com>
Sent: Monday, July 22, 2019 10:51 AM
To: Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>
Subject: Magnolia Shopoff Development.

As a reminder that our General Plan was updated in 2017 and DOES NOT allow the Shopoff Development. Remember The General Plan is the fundamental policy document to determine the appropriate physical development and character of Huntington Beach thru 2040. Friendly Reminder Ursula you are a relative new hire and you represent the Community and NOT the Developers who wish to skirt the General Plan and change Zoning to suite their investors profits. While many on our city council can be bought by the lobbyists money and influence your position is non-political and your guidelines are are clear. Every effort to make changes to our General Plan and Zoning must be stopped and the use of Specific Plans are a determent to our community standards and only a tool for the developers to override the public will. This Shopoff Development Plan MUST be denied.

Thank You
Larry Mc Neely .

From: Lou <lightnlc@aol.com>
Sent: Monday, July 22, 2019 1:30 PM
To: Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>
Subject: General Plan

Uphold the General Plan and say NO to the developer..we will be there tomorrow 500 strong.

Sent from Mail for Windows 10

Ramos, Ricky

From: MyHB <reply@mycivicapps.com>
Sent: Thursday, August 08, 2019 4:31 PM
To: Ramos, Ricky; James, Jane
Subject: Status Updated - MyHB-#175822 Planning [06635]

MyHB

Status Changed - #175822

Work Order #175822 status has changed from assigned to resolved.

Staff Note:
Thank you for your communication regarding the Magnolia Tank Farm project at Magnolia and Banning. Your comments will be shared with the Planning Commission and City Council, the decision makers on the project.

Status

resolved

Work Order

#175822

Issue Type

Planning

Staff Member(s)

rramos,Jane James

Notes

Zoning of development on Magnolia and Banning. I am against this and want to know if you are voting for it.

View the Report

Reporter Name

Marilyn Golden

Email

mcgolden25@gmail.com

Phone

714-454-1065

Report Submitted

JUL 23, 2019 - 3:46 PM

Please do not change subject line when responding.

From: Surf City Pipeline
To: Ramos, Ricky
Subject: Surf City Pipeline: You have been assigned a new Request #: 28605
Date: Thursday, February 02, 2017 2:46:28 PM

Request # 28605 from the Government Outreach System has been assigned to you by Judy Demers.

Request type: Question
Request area: Planning - All Reassigned Inquiries to Planning
Citizen name: Mark Dixon
Description: Good Evening -

We were among a very large crowd that filled the all-purpose room at Eader School this evening to express our strong objection to the placement of a hotel on the property currently known as Huntington Beach Tank Farm.

Adding a hotel on the edge of a large concentration of single-family homes would negatively impact our property values and quality of life, bringing large numbers of vacationers close to schools and residential neighborhoods.

WE DO NOT WANT A DOWNTOWN ANNEX and all the noise, violence, drugs and alcohol that currently degrade the Downtown Area. Please consider the needs of families above those of developers and refuse to approve a plan that includes a hotel.
Respectfully,
Mark Dixon and Sandra Fazio

Expected Close Date: February 3, 2017

Click here to access the request

Note: This message is for notification purposes only. Please do not reply to this email. Email replies are not monitored and will be ignored.

From: Surf City Pipeline
To: Ramos, Ricky
Subject: Surf City Pipeline: You have been assigned a new Request #: 28829
Date: Tuesday, March 07, 2017 9:23:58 AM

Request # 28829 from the Government Outreach System has been assigned to you by Judy Demers.

Request type: Comment

Request area: Planning - All Reassigned Inquiries to Planning

Citizen name: Deanna vale

Description: My family has lived for almost 12 years in Huntington Beach and we had no idea until recently that the Magnolia Tank Farm would be sold for a potential development until the Orange County Register reported it since the city and property owner was quiet about the land being for sale. Despite the fact that one of the worst toxic waste dumps in the country borders this land and is still not cleaned up, we have read that the developer claims the land is actually clean enough to build homes on. Has the city seen this study? Does the city trust that and adequate study was done on the potential toxic waste that may be under the top surface when they start digging for home foundations?

Expected Close Date: February 28, 2017

Click here to access the request

Note: This message is for notification purposes only. Please do not reply to this email. Email replies are not monitored and will be ignored.

Ramos, Ricky

From: Ramos, Ricky
Sent: Thursday, July 25, 2019 1:46 PM
To: Ramos, Ricky
Subject: FW: Proposed changes to the HB 2017 general plan and zoning

---

From: Mike Mengel <mjmengel@mindspring.com>
Sent: Monday, July 22, 2019 2:48 PM
To: Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>
Subject: Proposed changes to the HB 2017 general plan and zoning

Dear Ms. Luna-Reynosa

This email is for the express purpose of informing you that I am completely against the proposal by Shopoff to make a change to the City General Plan approved in 2017 for the planned development near the protected wetlands near magnolia and PCH. It is my understanding is that this proposal is to be presented to the Community Development Department at a meeting on July 23, 2019. I am totally opposed to any changes in the General Plan.

Thank you,

Michael Mengel
16581 Grunion Lane #304
Huntington Beach, CA 92649

mjmengel1@verizon.net
(714) 846-7196

Ramos, Ricky

From: Luna-Reynosa, Ursula
Sent: Tuesday, July 23, 2019 12:55 PM
To: Ramos, Ricky; James, Jane; Villasenor, Jennifer; Kiff, Dave
Subject: FW: HB Homeowner

From: Mrdi <mrdi2003@yahoo.com>
Sent: Tuesday, July 23, 2019 12:46 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: HB Homeowner

The tank farm proposed development is an ill conceived perpetration by money hungry developers. The local infrastructure is not capable and the city is opening itself up to continued liability claims for the cause of cancerous health problems that will be forthcoming for the location adjacent to ASCON.
A lodge with 40 dorm beds is an invitation to further abuse by the drug addicts that are currently flocking to HB.
A planned slum in the making, I am against this development.

Ramos, Ricky

From: De Coite, Kim
Sent: Monday, August 05, 2019 5:31 PM
To: Ramos, Ricky; James, Jane
Subject: FW: Public Comments for Aug 5th meeting

Kimberly De Coite
Administrative Assistant
Department of Community Development
714-536-5276
kdecoite@surfcity-hb.org

-----Original Message-----
From: Dombo, Johanna <Johanna.Dombo@surfcity-hb.org>
Sent: Monday, August 05, 2019 2:00 PM
To: De Coite, Kim <KDeCoite@surfcity-hb.org>
Subject: FW: Public Comments for Aug 5th meeting

For you...

-----Original Message-----
From: Nancy Buchoz <nancybuchoz@yahoo.com>
Sent: Monday, August 05, 2019 12:47 PM
To: CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Public Comments for Aug 5th meeting

Dear Mayor Peterson and City Council,

I am writing to share my concerns regarding the proposed Magnolia Tank Farm as it is being discussed at the Planning Commission level currently.
My concerns are as follows.

The current situation with regards to Ascon Landfill and its halted remediated warrant a second look at the actual environmental condition of the land as it is today. The appropriate thing to do is to have a more comprehensive soil testing done with deeper borings being used as information seeking tools to help us understand the level of toxicity we are actually going to find if this land is excavated. Like Ascon, the soil was thought to be harmless in areas, but once unearthed, the chemical vapors and odors became more than a nuisance, they become instigators of community illness. In order to prudently process with any development we must “be overly careful” and err on the side of being almost too cautious as we definitely dont want to see Ascon part 2 occur for the residents of SEHB. I believe a more thorough gridline soil assessment would benefit our understand of this land as it is only a chain link fence away from some seriously dangerous chemicals as we all know now.
I believe the air pollution as it is currently being monitored in SEHB is at levels approaching consistenly harmful levels and this is from the documentation being distributed by SCAQMD and Ascon. Currently their air monitors have been reading our community because of the issues with Ascons and the faulted remediation, and its showing readings over the acceptable limits for PM10 at locations like Eader Elementary school. (which had a recent reading of PM10 57 anything over 50 is over and typically… anything over 25 is considered bad air quality) the levels were raised for Ascon per AQMD. To this day , no one understands why…. it can only be to create a legal avenue for the Ascon people to keep working while the residents continue to suffer from the effects of the bad air quality. As a resident, i believe is the city

councils responsibility to protect the residents from things like air pollution caused by overdeveloping of any one particular area. We had simultaneous projects occurring and its harming the air quality in Sehb and all this before the potential for more harm comes from a development at the Tank Farm. Today it is impossible to ascertain actually what project is causing the high levels of PM 10?? who would be required to stop work ??? AES??? ASCON??? Add to it another development and this could be a catastrophic situation, a real health crisis for those living in SEHB. Please halt the current proposed development at the Tank Farm and let the Ascon area and the AES area finish their work before we add more pollution and harmful chemicals into the air and into the citizens of SEHB. A no zone change and a more thorough review and potential third party look at the soil makes sense considering what we know now about Ascon and the area itself, through history.

Thank you for your consideration.

Nancy Buchoz

Ramos, Ricky

From: Rob and Lesley Harper <lr_harper@yahoo.com>
Sent: Tuesday, November 28, 2017 9:47 AM
To: Ramos, Ricky
Subject: Shopoff Development

Hi Rick,

I realize that the EIR will study all of the normal environmental impacts - like traffic and noise. However, please consider studying the economic effects of the proposed project by shopoff in SEHB. As a resident, we are concerned that becoming a low income tourist destination will negatively impact our traffic, economy and housing values. We are also concerned about experiencing an increase in crime due to the transient (tourist) traffic increase in the area. We are tired of having packages stolen off of our front porches and cars stolen from our driveways, not to mention drug deals happening on our streets. SEHB is in need of better dining and shopping, economic boosting businesses - not a low income (hostel) or high density residential development. We could use better public facilities - like a high school with full facilities - re: a competition pool and a decent public library branch.

Thank you for taking these concerns into account when the EIR is done.

Rob and Lesley Harper
21571 Hanakai Lane, HB

Ramos, Ricky

From: James, Jane
Sent: Thursday, August 15, 2019 8:09 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm Study Session 8/13/19
Attachments: PlanningCommission81319.pdf

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Sharon M. <marmiejoe@msn.com>
Sent: Tuesday, August 13, 2019 9:26 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Peterson, Erik <Erik.Peterson@surfcity-hb.org>; Claudia Perez <claudia.perez@asm.ca.gov>
Subject: Magnolia Tank Farm Study Session 8/13/19

A man and his corporation buys a plot of contaminated land with full disclosure that this toxic ground was judged in all wisdom as being uninhabitable for humans and zoned for public/semi public use only.

The man decides to change the zoning and questions the wisdom of the city, the residents, the local fire department and public safety agencies.

He does this with the audacity of the following serious problems:

1. 1) He submits an incomplete environmental impact report, which claims on the page and section entitled Executive Summary that "this is a full-disclosure document in order to (1) inform agency decision makers and the general public of the direct and indirect potentially significant environmental effects of a proposed action. . . " while only providing all of us with glimpses of data and no access to the original reports. Where are the original reports and how do you or I know that they are accurately reflected in this EIR.
2. 2) At least one report that IS included, The Baseline Tank Study Report, beginning on page 6 of the EIR Appendix G mysteriously leaves out pages 1-3 and page 4 begins with "varied from ND to 90 ppm at the 6-inch depth." You and I both want to know exactly WHAT chemical was found at 90 ppm and WHERE it was found.
3. 3) Ignoring completely the HB Fire Department's review on page 23 of Appendix G that "the site requires a full investigation with soil sampling on a grid basis across the entire property, and evaluation of the potential of off-site contamination (Ascon Landfill). The use of the existing data was insufficient to prepare a HHRA.
4. 4) Disregarding the HBFD review on page 24 of Appendix G that "the HHRA were not appropriate for a residential site with exposure to indoor air. The HHRA needs to be updated according to all DTSC-approved procedures following a FULL evaluation of soil, soil gas and groundwater at the site."
5. 5) And then we enter into the northern area of this contaminated purchase which proves the reality that his parcel and the landfill parcel connected to it are linked as one, toxicologically speaking and will never be fit for indoor or full-time human habitation;

- According to page 186 in Appendix G, Soil samples collected near the north property line has benzo(a)pyrene and dibenz(a,h)anthracene that were above the limits for residential limits. These two chemicals are known to be HIGHLY cancer-causing with the highest degree of toxicology rating. One of these chemicals was so abundant in Pit F, that it went beyond the ability to take measurement. And is found on the Tank Farm.
- According to page 20 of Appendix G, crude oil appeared to be migrating along near surface bedding planes and was readily observable along the northern property line. The crude oil

impacted material is . . . still present along the property line and too the north under the Ascon

facility.

- According to the same page of Appendix G, a short section of piping was observed leaving the

  Ascon Property and entering the . . . property. It was stuffed with dirt and still contained crude oil. The piping in this area was significantly degraded and crude oil had been discharged into the surrounding soil. Thus, it appears that the pipeline extending from the Ascon property may be an ongoing and continuing source of petroleum hydrocarbons impacting soils at the Shopoff site.

- Page 29 of Appendix G, Elevated concentrations of TPH along the northern property line may be related to past activities on the Ascon Landfill to the north.
- Page 29 again says that some of the VOCs detected in the soil gas exceed EPA Resident Ambient Air RSLs. The highest detected soil gas concentrations of benzene, ethylbenzene, naphthalene, chloroform, 1,3,5—trimethylbenzene, 1,4-dichlorobenzene, and 1,2,4- trichlorobenzene exceeded Indoor Air Residential and Tier 1 ESLS DTSC HERO as well as EPA Resident Ambient Air.
- on page 30 groundwater samples TPH, TBA and metals exceed in some of the groundwater samples collected and may be from Ascon Landfill.

  I stand here today on behalf of our collective wisdom and our shared hope of a healthy environment for today and for generations to come

  Do not certify or approve an unworthy EIR from a flawed business plan.

  Trust the zoning and General Plan that is in place. It works if we follow it. Do not let the poor business choice of a risky business gamble cause you or anyone in this room to gamble with the lives of the school children, residents, wildlife and future of our precious city. Say no to this ridiculous proposal of GPA and Zone Change and yes to what we all know to be best for everyone. It’s that simple.

Thank you,

Sharon Messick

Huntington Beach Landfill Awareness Project

9352 Molokai Dr.

Huntington Beach, CA 92646

909.636.6277

Ramos, Ricky

From: Luna-Reynosa, Ursula
Sent: Tuesday, July 23, 2019 12:58 PM
To: Ramos, Ricky; James, Jane; Villasenor, Jennifer; Kiff, Dave
Subject: FW: Tank Farm/Shopoff development

From: Stacey Coburn <stacey@lrsrm.com>
Sent: Tuesday, July 23, 2019 12:32 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Tank Farm/Shopoff development

Hello Attention Planning Commission Members

AS a valued homeowner and local of HB, Ive lived near this tank farm for the last 10 years. I understand the history of this area and what lives within the soil of his location. I know there is a plan to build residential homes on this land. I urge you to stop the development of any homes to be built on this land.
Please vote NO on any development on this particular area of land.

Please enter this into the public record.

Thank you

Shopoff Realty Investments proposed two development scenarios in an area that was formally an oil storage and pumping facility at 21845 Magnolia St. in Huntington Beach. (Courtesy of the city of Huntington Beach)

Stacey Coburn Realtor (LICENSED AGENT) DRE#01481632
Property Management (22 yrs exp Professional Management services)
15 Hubble Suite 120, Irvine CA 92618 LRS Realty & Management, Inc
(818) 884-5155 office | (714) 756-1300 cell Stacey@LRSRM.com
www.LRSpropertymanagement.com | Video About LRS

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 13, 2019 9:26 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

-----Original Message-----
From: Steve Farnsworth <hazmn54@gmail.com>
Sent: Tuesday, August 13, 2019 9:23 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Hazman <hazmn54@gmail.com>
Subject: Magnolia Tank Farm

Planning Commission,

I believe the only prudent thing to do with the Magnolia Tank Farm proposed EIR and development would be to put this project on hold until after the COMPLETE cleanup of ASCON and any adjacent property potentially impacted by ASCON (e.g., Magnolia Tank Farm). I can't imagine building homes just feet away from an active Superfund site.

Thank you for your consideration in this matter.

Steve Farnsworth

Sent from my iPad

Ramos, Ricky

From: James, Jane
Sent: Thursday, August 15, 2019 8:04 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm Concerns
Attachments: Magnolia-Tank-Farm-Notes.docx; Tank Farm Planning Comm-8_13_19 copy.docx

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Tara Waters <tarabarton1111@gmail.com>
Sent: Wednesday, August 14, 2019 8:06 PM
To: Gregg Haulk <Ghaulk@hbcsd.us>; Grant.Cope@dtsc.ca.gov; Claudia.perez@asm.ca.gov; Alyssa.napuri@mail.house.gov; Ryan.billings@asm.ca.gov; laura.oatman@mail.house.gov; Peterson, Erik <Erik.Peterson@surfcity-hb.org>; Claire.conlon@asm.ca.gov; charwick@hbuhsd.edu; Owen Crosby <ocrosby@hbuhsd.edu>
Cc: HBUHSD <marmiejoe@msn.com>; CITY COUNCIL <city.council@surfcity-hb.org>; Planning Commission <planning.commission@surfcity-hb.org>; Boardoftrustees@hbuhsd.edu; HBUHSD <Alexander.Gonzalez@mail.house.gov>
Subject: Magnolia Tank Farm Concerns

Greetings,

Attached is a summery of concerns from the community regarding the Magnolia Tank Farm DPEIR and some questions that have arisen based on the EIR. Please review for your background knowledge. I am available if you have questions or would like to discuss.

Thank you for your time.

Tara Barton
HB-LAP

909-223-9234

Magnolia Tank Farm Community Concerns:

The environmental data collected at the property is insufficient to support unrestricted use and residential development. The most significant health risk associated with the petroleum contamination is the migration of hazardous vapors into building structures. Petroleum compounds will "off-gas" volatile organic compounds (VOCs) which can build up beneath pavement and subsequently inside buildings. To determine the vapor intrusion risk, a full assessment of VOCs needs to be completed in areas of known contamination and planned development; this has not been done at this property.

The Human Health Risk Assessment (HHRA) performed for the property in 2016 is inadequate, specifically due to the limited number of soil gas samples (in consideration of the size of the property), and their locations outside of areas of known soil and groundwater contamination. Also, the 2016 HHRA has not been updated to follow current EPA/DTSC guidelines, specifically a revised attenuation factor used to calculate the expected concentrations of hazardous vapors inside buildings.

Additionally, much like the insufficient soil gas sampling at the property, groundwater sampling in 2018 was NOT performed in areas of known contamination, or in areas that groundwater would flow towards. The well locations are not suitable to determine the extent of groundwater contamination beneath the property.

GENERAL:

- Soil gas sampling performed in 2013 and 2016 is insufficient due to the limited number of sample locations and their locations outside documented areas of contamination.
    - A total of 23 soil gas locations have been sampled at the property; **this is less than one per acre,** which is not adequate to determine the vapor intrusion risk for future residential buildings across the property.
    - The soil gas samples were **NOT** collected the areas of the three (3) former tanks or piping **which have been documented with contamination**.
    - The Huntington Beach Fire Department (HBFD) has previously stated the existing data was insufficient to prepare a HHRA and not appropriate for a residential site with exposure to indoor air (HBFD Review of Existing Reports, 2017).
    - The HBFD has also stated that the property requires a full investigation on a grid basis across the entire property; which has not been completed (HBFD Review of Existing Reports, 2017).
    - The 2016 HHRA itself concludes further assessment may be warranted for impacts identified at the pipeline along the northern boundary and 3 former oil producing wells.

- The recommended sampling on a grid basis has not been performed. Additional soil gas assessment for VOCs should be performed in a comprehensive grid across the property, or at a minimum in areas of documented contamination.
-

2013 Soil Gas Assessment:

- The fifteen (15) soil gas samples collected in 2013 were NOT in areas that contamination has been documented.
  - The locations were along the perimeter of the property and/or outside the footprint of the former tanks and piping.
  - Even in consideration of inadequate locations, **multiple VOCs exceeded regulatory screening levels**. These contaminants included *benzene, ethylbenzene, naphthalene, chloroform, 1.3.5- trimethylbenzene, 1,4-dichlorobenzene, and 1,2,4–trichlorobenzene.*

2016 Soil Gas Assessment:

- The eight (8) soil gas samples collected in 2016 were limited to methane analysis (not all VOCs) and were not in the areas of the former tanks, former oil wells, or piping.
  - Only two (2) of eight (8) samples were submitted for laboratory analysis.
  - The laboratory results were inconsistent with the field screening results. One of the two samples showed detections of methane that were not identified in the field.
  - The DTSC has noted that the two (2) submitted samples were not analyzed within the appropriate time of six-hours.
  - Huntington Beach City Specification 429 requires methane testing at a distance of 1,000 feet from landfills and 100 feet from abandoned oil wells.
- It does not appear the testing requirements for methane have been met; additionally this assessment did not include analysis of VOCs.

2016 Human Health Risk Assessment:

- The use of a 0.001 attenuation factor used in the vapor intrusion risk assessment is not appropriate for the site. Current 2015 EPA guidance and DTSC HERO Note #3 recommends an attenuation factor of **0.03**, over an order of magnitude less.
- Chemicals that were detected, but did not exceed published regulatory screening levels, were excluded from the HHRA.
  - When performing a cumulative HHRA, exclusions based on their individual screening levels is not appropriate.
- Additional soil gas sampling in areas of documented contamination should be performed and the HHRA should be updated to include the additional data and recommended attenuation factor of 0.03.

2018 Groundwater Monitoring Well Sampling:

- The three groundwater monitoring wells (MW-1 through MW-3) were *NOT* installed within or "down-gradient" of the known areas of contamination.
    - None of the wells were installed in the areas of former tanks, oil wells, or piping.
    - The groundwater flow is reported towards the northeast corner of the property. No wells were installed in this location.
- Additional wells should be installed within areas of documented contamination, as well as the northeast corner of the property which is directly "down-gradient" of this contamination.

Regulatory Framework

The regulatory oversight for the property is unclear, and it is not understood why the Huntington Beach Fire Department may have been designated the lead agency.

- The Compilation Report (Tait 2017) indicates that the Huntington Beach Fire Department (HBFD) is the lead oversight regulatory agency for the project, which is inconsistent with other reports.
    - The HBFD has stated that the contamination is beyond the limits of the HBFD jurisdiction, and that the DTSC and potentially other regulatory agencies should have the status as the lead agencies.
    - The HBFD and Shopoff have subsequently agreed that the DTSC is the lead agency for the site.
- The inconsistent regulatory oversight of the property may have resulted in previously identified data gaps and subsequent recommendations not being addressed.

As a HB resident, mother, scientist, and activist I have a lot of questions, as does this community. You too should have these same questions. I believe the answers would conclude that it would be too big of a liability and negligent to approve the rezoning requests of Shopoff for the Magnolia Tank Farm project. This triangle of land in totality should be condemned and NEVER developed.

I do not understand the inconsistencies of the statements made by representatives of Shopoff Reality to the city of Huntington Beach and this Planning Commission. Representatives of Shopoff Reality have insisted that the Tank Farm site does not contain toxic soil or ground water. They have also stated ASCON has not affected Tank Farm soil or ground water.

- How can land that was once an oil field not contain contaminants?
- How can land next to a superfund toxic dump, only separated by a chain link fence, not contain cross contamination of ground water, deep soil, and top soil?
- When the 3 Tanks were removed from the site in 2017 did they contain asbestos and lead? The draft EIR states the Tanks did in fact contain asbestos and lead…so was that asbestos and lead released in to the air without warning to the public?
- Why is this project not on Environstar and DTSC's respective websites?
- Total Petroleum Hydrocarbons were found above recommended limits in the soil at Tank Farm in 2013. In 2016 soil tests were taken again and based on this data the RFI report recommended closure of Shopoff's portion of the generating station. Why?
- The Human and Ecological Risk Office has concerns with the methodology and conclusions of the RFI Report. Why?
- Ground water has been found with elevated levels of TBA, metals, and TPH at both Tank Farm and ASCON. What's the source?
- The April 18, 2018 Compilation Report of Environmental Investigation suggests ASCON is one source of the ground water's contamination yet additionally states DTSC has determined the ground water has beneficial use such as municipal, industrial, and agriculture. Why would known toxic ground water ever be used where exposure to humans and wildlife is a risk?
- The same report states "the pipeline extending from the ASCON property may be an ongoing and continuing source of petroleum hydrocarbons impacting the soils at the Shopoff site." Why is the community being told ASCON is not a contamination threat to Tank Farm then?
- The same report states "VOCs detected in soil gas exceeded EPA Resident Ambient Air RSLs." So why is this land considered a safe and appropriate place to build residential homes?
- Has the air been assessed and monitored during AES construction and at the Tank Farm site? Will the air be monitored for background proposes?
- Eader Elementary PM10 readings have been over 50ug/m3 (up to 67) and is not located in the known wind pattern of ASCON. What is the source of the particulate matter?
- What is the accumulative effects of AES, ASCON, and Tank Farm projects on the community?
- What will the long term health effects be to the community from exposure to toxins from AES, ASCON, and the proposed Tank Farm Project?

Shopoff does not live or work in Huntington Beach…he just wants to build on toxic land and spin a profit at the risk of poisoning the community. The community doesn't need high end houses, we need more affordable houses. If this land is too toxic for the affluent, its to toxic for the destitute. This land should be condemned forever.

- What is Shopoffs intent and overwhelming interest in Huntington Beach?
- Why has he sponsored large Gala's at GoldenWest College?
- Why has he contributed to politician's campaigns in Huntington Beach?
- Why does he donate large sums of money to the Huntington Beach Chamber of Commerce?
- Why does he donate large sums of money to pediatric brain cancer research to a charity founded by a family who lives next to Tank Farms and lost a child to DiPG?
- Why did Shopoff offer to donate millions of dollars to build the Aqua Center at Edison High School which is located across the street from Tank Farm and ASCON?

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 8:00 AM
To: Ramos, Ricky
Subject: FW: ASCON PROJECT

Importance: High

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Gary Tarkington <garytarkington@msn.com>
Sent: Friday, August 23, 2019 12:15 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: ASCON PROJECT
Importance: High

The Huntington Beach City Council,
According to the latest scientific evidence on SERIOUS MENTAL ILLNESS, the combination of chemicals your child was exposed to from the offgassing excavation has put your child at risk for developing bipolar disease, schizophrenia, personality disorder, epilepsy, and Parkinson's disease. This is from ASCON!
We want YOU the HB City council to fight the corporate polluter Ascon and new development on the Tank Farm that will make your child's bad air quality worse in the near future. Nothing jeopardizes a child's future like serious mental illness, which is now believed to be potentially brought on by neuroinflammation due to environmental toxins. This project is NOT RIGHT for many reasons! Please VOTE NO!!!
Ann Tarkington
Huntington Beach

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 27, 2019 2:04 PM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Bob Vale <surfbob33@gmail.com>
Sent: Tuesday, August 27, 2019 1:48 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Planning Commission Members,

I oppose the Proposed Shopoff Project.

I'd like to see either no development or housing that is consistent the existing neighborhood. And no hotel! The alternatives need to have positive effects on the environment, residents, and visitors.

I'm concerned about over development, especially when you consider the cumulative effect of being next to the Ascon Toxic Landfill, the AES Generating Facility, and possibly the Poseidon Desal Plant.

I'm concerned our city is considering changing zoning to allow Shopoff to continue with their proposed project right next to the Ascon Toxic Landfill, especially when you consider we're in a liquefaction area and flood zone. I'm thankful a cleanup activity was started, even though it's now on hold. We really don't totally understand the full extent of what industrial toxic chemicals have been buried there for years and years. During a flood and or an earthquake the required deep foundations and graded surfaces of the proposed project right next to Ascon create a risk for contaminated water flow to the surrounding neighborhoods, the Magnolia Marsh, and storm drains leading to the ocean. I believe it's risky, and opens up the potential for future lawsuits if our city allows building a new neighborhood of this size right next to the Ascon Toxic Landfill.

It painfully reminds me; the decision makers thought it was perfectly safe to build right next to the contaminated Love Canal.

Every neighbor I talk with is totally against the Shopoff proposal and would like no development or housing that is consistent the existing neighborhood. And no hotel! Most of

my neighbors work full time, some with kids, and don’t have a lot of time for City Council/Planning meetings. Most hope they’re being represented correctly.

I respectfully ask our City Planning Commission to make responsible decisions for us and future generations.

Thank you,
Bob Vale
9332 Leilani Drive
Huntington Beach, CA 92646

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 27, 2019 3:25 PM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm Project

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: s.a.m.e.nsehb@gmail.com <s.a.m.e.nsehb@gmail.com>
Sent: Tuesday, August 27, 2019 10:12 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm Project

Planning Commissioners
I live right across the street, south of Banning and east of Magnolia, from the MTF. From what I've been reading in their EIR reports anytime anything comes up about parking they say "there is parking on Magnolia" so no problem. Wrong there is 2 hour parking on Magnolia during the day and 1 hour at night. I don't see enough parking in the area for everything they want to do also I don't see any Handicap parking at all.
Being one who is handicap this is important to me. As it is now with the lack of parking on Magnolia the increase in traffic in our neighborhood has more than doubled.
This makes it hard for me to get across the street. Sure we have access ramps now but no one stops for you to get across the street or they just park in front of the curb. It's a $364 ticket but I still can't get across the street.
With the lack of parking for the MTF and the amount of cars it will bring traffic in our neighborhood will really increase. Even if they put in a parking garage for the hotel and business it won't work. People won't pay to park at the beach now and people wont't pay to park in their garage if they know they can just park across the street for free. The same with the residents or maybe even valet parking.
When I want to go to the beach I have to go out to Banning and ride down the sidewalk to Magnolia. Cross north on Magnolia than cross Magnolia. I then have to go back towards the beach crossing the driveway/street to the MTF. If the hotel is there this could be a very busy intersection.The other way is to go out out on Banning to Magnolia, around the corner and down Magnolia towards PCH. Then cross Magnolia and up on the sidewalk at PCH. If there are a lot of people at the corner I can't get on the sidewalk and have to wait in the street. With the increase in traffic, this isn't the best idea
I think this whole project is going to increase foot, car and truck traffic on Magnolia and surrounding neighborhoods. Add an event at the State Beach and traffic could stop.
Plus with the small amount of parking in the MTF it will fill up very quickly in the summer and on State Beach events taking all spaces for residences and hotel guest.
We don't need more traffic, a hotel or houses that don't match the area. We'd do better with just a parking lot or better a green zone. We're taking so many of our trees and plants away and soon there will be none, just concrete and buildings just like New York.
Please save our beach community
Bonnie Marriott

Ramos, Ricky

From: James, Jane
Sent: Thursday, August 29, 2019 9:48 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm, Ascon, and AES - Pollution and Traffic

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Cheri Pulcini <brucecheri50@gmail.com>
Sent: Thursday, August 29, 2019 9:39 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm, Ascon, and AES - Pollution and Traffic

As residents of Huntington Beach in the Seabury Tract between Newland and Magnolia and Atlanta and Hamilton, we would like to let you know that traffic in our has seriously increased since Pacific City was built. Now you want to build even more packed to the hilt housiing. The Tank Farm does not fit in - this is a residential neighborhood with kids and bikes - we don't need hotels in this area.

Traffic gets backed up just trying to make a left turn into the Vons Shopping Center. That is just now. If the Magnolia Tank Farm is added then the traffic around here will be CRAZY! We do not need any more hotels or stack-and- pack homes jammed along the coast and into our neighborhoods. It is difficult now to enter / exit our neighborhood with all the traffic on Hamilton! and also Magnolia and Newland! Sometimes you have to wait for as many as 45 cars to go by just to make a turn into the track - and we're not even near the freeway - that's crazy.

Also, there are 2 huge pollution issues happening right now - Ascon and AES - these are toxic-air nightmares for us - we can't walk through Edison park without the stink smell of methane & oil. Is this guaranteed safe for us and our children?

Our safety and health must be protected - it is all of your jobs to make sure we and our children and grandchildren are safe; and not jammed into an area packed to the hilt with cars and traffic.. As it is now, we have to "schedule" to do our shopping only on weekdays and only in the mornings.

We look to you to do the right thing - no hotels, and much, much less traffic.

Thank you, Bruce and Cheryl Pulcini
21322 Sand Dollar Lane, Huntington Beach, Ca 92646
Residents for 45 years

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 27, 2019 7:55 AM
To: Ramos, Ricky
Subject: FW: Comments on Magnolia Tank Farm -- Commission Meeting 8/27/19
Attachments: MTF Planning Commission 82719.pdf; Appendix-G -Soil and Groundwater tests 2013 pp20-22.pdf; MTF Planning Exhibits dropbox.pdf

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Shammy D <shammyd@mac.com>
Sent: Monday, August 26, 2019 10:05 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Comments on Magnolia Tank Farm -- Commission Meeting 8/27/19

Dear Commissioners:

I plan to make comments at tomorrow evening's meeting of the Planning Commission on the EIR for the Magnolia Tank Farm. Attached are my comments as well as a backup document. I am also attaching a backup document for my comments at the previous meeting on the MTF.

Carolyn "Shammy" Dingus
8932 Modesto Circle, Unit 1209E
Huntington Beach, CA 92646
808-778-4013
shammyd@mac.com

Basic Summary of Issues

Soil Gas Tests Inadequate and Erroneous

- Primary emphasis on EIR analysis has been on SOIL testing, but soil GAS testing is more important for RESIDENTIAL use.
- The amount of testing is inadequate. A total of only 24 soil gas samples have been tested. LESS THAN 1 PER ACRE. 16 samples taken in 2013 showed VOCs exceeding EPA limits (i.e., Benzene). In 2016, 8 additional samples were tested — but for METHANE ONLY.
- SOIL GAST TESTING ONLY DONE ON PERIPHERY — NO TESTING was done under the tanks. No consideration was given to the actual location of planned houses relevant to the location of tests. A test grid with several tests per acre, using a FULL-SCREEN analysis of VOCs is required. Too many assumptions have been made with VERY LITTLE ACTUAL DATA.
- An out of date Attenuation Factor (.001 vs. .03 current) was used in the HHRA (Human Health Risk Assessment) calculation, which resulting in an estimation of risk that UNDERSTATES BY AT LEAST 2 ORDERS OF MAGNITUDE THE ACTUAL HEALTH RISK AT THIS SITE.

Groundwater Tests and Planning Incomplete

- Likewise the groundwater testing was inadequate. It was SIMILARLY ONLY TESTED AT THE PERIPHERY OF THE PROPERTY with no regard to where houses would be located, and not tested at all under the tanks.
- The RELATIONSHIP between the groundwater, which carries GASES, was not considered. The groundwater may be a continuing source of soil gas which may penetrate the homes.
- NO CONSIDERATION WAS GIVEN TO THE HB CHANNEL as a CONTINUING SOURCE of pollutants in the groundwater. The Ascon toxic dump, as an example, has a history of being pump or overflowing into the channel.

SUMMARY: THIS PROJECT IS NOT READY FOR DECISION-MAKING

- Full-Screen VOC grid testing is required to test ALL the property, particularly the areas where residences may be located in the future.
- The calculations for health risks much be re-computed
- Greater attention to be payed to the COMMENTS MADE BY THE HBFD. They have done an excellent job of identifying problems with the project and environmental assessment.

THIS PROJECT IS BASICALLY A BAD IDEA

- As the SCAQMD has pointed out, this property is wedged between a heavy-duty industrial area and a toxic waste dump. The appropriateness must be considered in its TOTALITY.
- There will be unknown health risks for future residents, which the city may be liable for.
- There will be a lot of noise (i.e. pile driving), additional dust, chemicals releases, and construction traffic forced on existing residents who are already dealing with immense issues related to the remediation of the Ascon toxic dump.

groundwater investigations are discussed in Sections 6.2 and 8.1, respectively. Figures, tables, and other relevant documents are contained in Appendix B.

Work Performed: Work was completed in December, 2013. A total of 15 soil gas probe locations (SG1 through SG15) were installed across the site, primarily within the bermed areas of the tanks, along the eastern perimeter of the site, and in the Primary Fuel Pumping Area. All soil gas samples were collected from a depth of 3 feet bgs. SG9 was not sampled, as groundwater was encountered at a depth of 4 feet bgs. The soil gas probe locations are shown on Appendix B-Figures 2 and 2A. All samples were analyzed for TPH using EPA Method TO-3, for BTEX compounds using EPA Method TO-17, and for VOCs using EPA Method TO-15.

Investigation Results: Analytical Results are shown in Appendix B-Table 5. Laboratory results contained in the WGR Report are shown in parts per billion (v/v) and are listed on Appendix B-Table 5 as parts per billion (ppb). Results of the investigation are as follows:

- Benzene was detected in SG2 at 0.56 ppb.
- Toluene was detected in SG4 at 5.4 ppb, and in SG15 at 11 ppb.
- Ethylbenzene was detected in ppb in the following soil gas probes: SG4 (2.2), SG 5 (17), SG10 (2.6), SG12 (0.75), SG13 (2.0), and SG15 (1.4).
- Total xylenes were detected in ppb in the following soil gas probes: SG4 (10), SG 5 (8.4), SG10 (12), SG12 (3.4), SG13 (19), and SG15 (6.6).
- Naphthalene was detected in SG14 at a concentration of 2.1 ppb.
- TPH was not detected in any of the samples.
- Additional VOCs were detected in some of the soil gas samples.

Table 2 is a summary of the Soil gas results, Much of this information was contained in the laboratory reports in the appendices of the WGR report, and it is summarized on this table. Table 2 summarizes only the highest concentrations of each VOC from all of the soil borings. The concentrations of VOCs in the WGR report are in ppb or ng/sample. In the absence of definitive data from the laboratory reports or the WGR report, the assumption is made here that the ng/sample is based on 1 liter of sample, and that 1 ng/sample is equal to 1 ppb. Calculations were made to convert to ppp values to micrograms per cubic meter ($\mu g/m^3$). An on-line conversion table provided by Eurofins Air Toxics (Eurofins, 2017) was used to complete the conversion.

Summary: WGR noted that several of the compounds detected exceeded EPA Region 9 residential air quality maximum contaminant concentrations. Based on the data shown in Table 2, the highest detected concentrations of benzene, ethylbenzene, naphthalene, chloroform, 1.3.5-trimethylbenzene, 1,4-dichlorobenzene, and 1,2,4–trichlorobenzene exceeded CRWQCB-SFB Indoor Air Residential and Tier 1 ESLs, as well as EPA Region 9 Resident Ambient Air RSLs. None of the VOCs exceeded the CRWQCB-SFB Residential Sub-slab ESLs. DTSC HERO Note 3 contained only screening levels for benzene and toluene, and benzene exceeded the DTSC screening level. VOC concentrations are relatively low; however, further evaluation of the analyses with respect to DTSC Hero Note 3 listing and the U.S. EPA Region 9 Resident Ambient Air RSLs may be warranted.

7.2 EEI 2016: Site Investigation Report (EEI, 2016)

Objective: To evaluate shallow soils and soil gas for potential impacts from petroleum hydrocarbons and perform a focused methane soil gas survey to identify areas of subsurface contamination that may impact site redevelopment. This section covers the soil gas investigation only. The soils investigation is covered in above in Section 6.3. Figures, tables and other relevant documents are contained in Appendix C.

Work Performed: Work was completed in February, 2016. Soil gas probes were installed in 8 locations (M1 through M8) within the bermed areas of Tanks 1, 2, and 3, and in the area of the Motor Control building. The locations of the borings are shown in Appendix C-Figure 2. Samples were collected at a depth of 4 feet bgs in each of the soil gas probes. The samples were analyzed for methane using EPA Method 8015M.

Investigation Results: Analytical Results are shown in Appendix C-Table 2. Methane was detected at a concentration of 14 parts ppm volume (ppmv) in sample M7-4, which is located at the northeastern perimeter of Tank 1. A methane concentration below the laboratory reporting limit of 10 ppmv was detected in sample M3-4, which is located northeast of Tank 3.

Summary: The methane levels detected are well below the Orange County Fire Authority screening level of 5,000 ppmv. The methane levels detected in the samples collected during this investigation were not considered to be significant.

8.0 RESULTS OF GROUNDWATER INVESTIGATIONS

WGR completed a groundwater sampling investigation at the site in December 2013 in coordination with the soils and soil gas investigation as outlined above in Sections 6.2 and 7.1, respectively. That investigation is outlined in Section 8.1 below.

8.1 WGR, 2014: Phase II Site Assessment (WGR Southwest, 2014)

Objective: To evaluate the potential presence of contaminants in groundwater along the northern boundary of the site adjacent to the Ascon property to determine the potential for on-site migration of contaminants from the Ascon landfill. Groundwater evaluation of the eastern, western, and southern boundaries of the site was also undertaken during this investigation. Figures, tables, and other relevant documents are contained in Appendix B.

Work Performed: Work was completed in December, 2013. A total of 8 groundwater borings were completed on the site. GW1 through GW5 were completed along the northern boundary of the site adjacent to the Ascon Landfill. GW 6 was completed along the eastern boundary of the site. GW 7 was completed along the western boundary of the site in the Primary Fuel Pumping Area. GW 8 was completed in the southern tip of the site. All of the GW-series borings were located outside of the bermed areas of Tanks 1, 2, and 3. The groundwater samples were collected from a depth of 1.5 feet below the groundwater table in each boring using low-flow purge techniques. A groundwater sample could not be collected from GW8 due to the fine-grained

lithology (clay) at this location. The groundwater boring locations are shown on Appendix B-Figures 2 and 2A. Groundwater samples from wells GW1 through GW7 were analyzed for TPH (full hydrocarbon chain) using CA DOHS Method 8015 and for VOCs using EPA Method 8260B. In addition, groundwater samples from GW1 through GW5 were analyzed for SVOCs using EPA Method 8270; for pesticides using EPA Method 8081; for PCBs using EPA Method 8082; for herbicides using EPA Method 8151; and for metals.

Investigation Results: Analytical Results are shown in Appendix C-Table 4. Note that Table 4 reports the results in milligrams/liter (mg/l); however a review of the lab reports indicates that all results are reported in micrograms/liter (µg/l). Results of the investigation are as follows:

- TPH was detected within the range of C15 to C36 in samples GW3 at (130 µg/l), GW5 (1,400 µg/l), and GW7 (210 µg/l). A concentration of 760 µg/l TPH in sample GW5 is within the DRO carbon chain range, with the remaining TPH in the MORO carbon chain range.
- Tertiary butyl alcohol (TBA) was detected in samples GW2 (370 µg/l) and GW6 (260 µg/l).
- Ethanol was detected in sample GW5 (370 µg/l).
- Bisphthalate was detected in samples GW2 (13 µg/l) and GW4 (23 µg/l).
- No other VOCs or SVOCs were detected in the samples.
- No pesticides, herbicides, or PCBs were detected in the groundwater samples.
- Metal levels were determined to be naturally occurring.

Summary: TPH concentrations in wells GW3, GW5, and GW7 exceed the CWRQCB-SFB ESL maximum Contaminant Level (MCL) for DRO of 150 µg/l and the CWRQCB-SFB Tier 1 ESL of 100 µg/l DRO. Some of the TPH in GW3, GW5, and GW7 appears be within the MORO range, which has a higher MCL, but this cannot be determined by the data in the report. TBA concentrations are above the CWRQCB-SFB ESL MCL of 12 µg/l for TBA. Bisphthalate detections were believed by WGR to be from the PVC casing used to collect the groundwater samples. WGR also stated that although the levels of metals was believed to be naturally occurring, several of the metals detections were above their respective MCLs, including arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, mercury, vanadium, and zinc. Each of wells GW1 through GW5 contained metals concentrations above their respective MCLs. The location of the site between the Pacific Ocean and the Talbert Gap Saltwater Barrier Project injection wells to the east has resulted in no municipal supply wells being located within 3 miles of the site. Therefore, the groundwater contaminants at the site are not considered a risk to the municipal water supplies.

MTF Simply Not Suitable for Residential Use

- The MTF Property is located between the *SCE Generating Plant* (an industrial facility), *Ascon Toxic Waste Dump, and PCH,* all of which produce various gases and other toxic materials.
- **The combination of all three of these** makes this property unsuitable for for residential use.
- Generation of power at AES results in the release of both conventional and greenhouse gas (GHG) emissions. These conventional air emissions may consist of sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM) and mercury (Hg). Also, the combustion of fuels results in the direct emission of Scope 1 GHGs, primarily carbon dioxide (CO2).

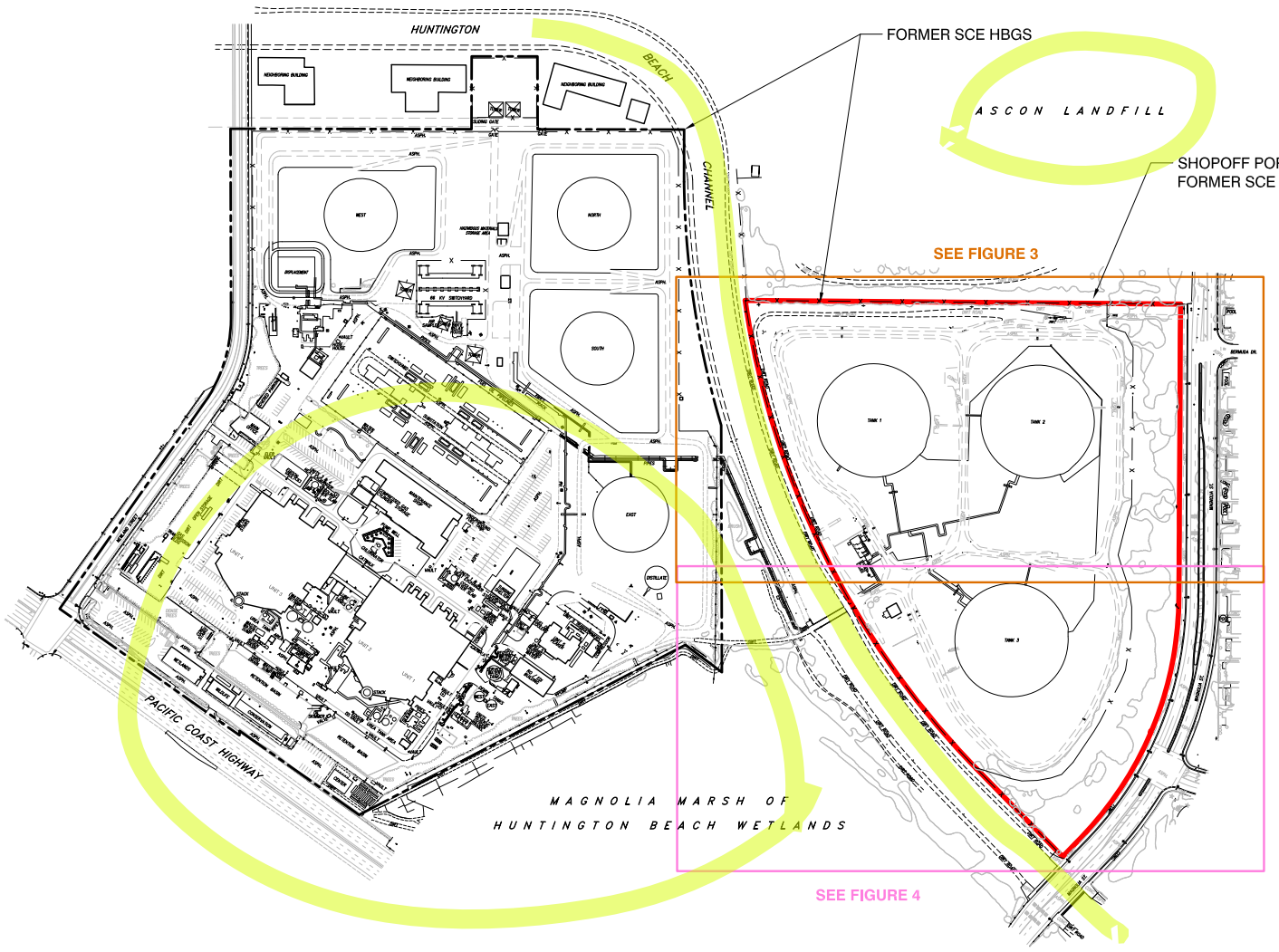
AES Huntington Beach

AIR QUALITY

ASCON

- Over the years, many who live in nearby neighborhoods have complained about the health problems they have experienced which they believe are caused by the chemicals on site, the additional effects of remediation, and questioned whether living so close to the site has increased their risk for cancer,
- Arsenic, sulfuric acid and benzene acid are among the chemicals found at the landfill, and, if left there, they could contaminate the groundwater supply, experts say.

C:\Drawing Files\Environmental Applications\1411-02 - SCE HBGS\Fig 2. Site Map - 10/06/2017



N

LEGEND

- Property Boundary
- Figure 3 - EPTC Tanks 1 and 2
- Figure 4 - EPTC Tank 3

0 300 600

APPROXIMATE SCALE IN FEET

ENVAPPS
environmental applications, inc.
2130 Huntington Drive, Suite 300
South Pasadena, California 91030

SITE MAP

Project
Shopoff Portion
Former Southern California Edison
Huntington Beach Generating Station
21730 Newland Street
Huntington Beach, California 92646

Project Number: 1411-02

Figure: 2

Date: October 6, 2017

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS: March 13, 2019

RRamos@surfcity-hb.org
Ricky Ramos, Senior Planner
City of Huntington Beach, Community Development Department
2000 Main Street
Huntington Beach, CA 92648

Draft Program Environmental Impact Report (DPEIR) for the Proposed Magnolia Tank Farms (SCH No. 2017101041)

South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final PEIR.

SCAQMD Staff's Summary of Project Description

The Lead Agency proposes to construct 250 residential units, a 211,000-square-foot hotel containing 215 rooms, a 19,000-square-foot retail building, a 2.8-acre conservation area, and a 2.8-acre park on 28.9 acres (Proposed Project). The Proposed Project is located at 21845 Magnolia Street on the northwest corner of Magnolia Street and Banning Avenue. Based on a review of Exhibit 3-2, *Local Vicinity,* in the DPEIR and aerial photographs, SCAQMD staff found that the Proposed Project is located adjacent to multiple sources of air pollution, such as the American Energy Services (AES) power plant, the Ascon Landfill site, and State Route 1 (SR-1). Additionally, the Proposed Project was historically used as a fuel oil storage facility as well as other oil-related facilities including pipelines and ancillary buildings[1]. Construction of the Proposed Project is expected to occur over five years from 2020 to 2025 and will become operational in 2026[2].

AES, PCH, ASCON

5-yr Construction

SCAQMD Staff's Summary of Air Quality Analysis

In the Air Quality Analysis Section, the Lead Agency quantified the Proposed Project's construction and operational emissions and compared those emissions to SCAQMD's recommended regional and localized air quality CEQA significance thresholds. The Lead Agency found that the Proposed Project's construction air quality impacts would be less than significant after the implementation of mitigation measure (MM) AQ-1[3], which requires scrapers used during construction activities to meet Tier 3 or better off-road emissions standards[4]. Additionally, the Lead Agency quantified emissions resulting from an overlapping construction and partial operation scenario occurring in 2025[5], in which 75% of residential units would be occupied and the remaining components of the Proposed Project would be fully operational, and then compared those combined emissions to SCAQMD's regional operational thresholds to find that the Proposed Project's air quality impacts would be less than significant.

SCAQMD Staff's General Comments

The Proposed Project is located in close proximity to power-generating facilities, landfill operations, and a freeway. These land uses have the potential to generate toxic air contaminants (TACs) and/or volatile

1 DPEIR. Section 2.4.1. *Property History*. Page 2-15.
2 DPEIR. Section 3.5.14, *Project Description: Phasing*. Page 3-20.
3 Construction emissions for 2021 were projected to be 104 pounds per day before implementing MM AQ-1 and 90 pounds per day after implementing MM AQ-1.
4 DPEIR. Section 4.2, *Air Quality*. Page 4.2-28 and 4.2-29.
5 *Ibid*. Page 4.2-31.

organic compounds (VOCs), and attract heavy-duty diesel-fueled trucks that emit diesel particulate matter (DPM), which the California Air Resources Board (CARB) has identified as a TAC based on its carcinogenic effects[6]. Therefore, the Lead Agency should analyze the potential health risks to residents who will live at the Proposed Project. The analysis will serve as substantial evidence to support the Lead Agency's finding that "the TAC impact to future residents and employees of the proposed Project or Alternative 1 and to off-site receptors would be less than significant[7]." Please see the attachment for more information. The attachment also includes recommended changes to existing MM AQ-1 that the Lead Agency should include in the Final PEIR.

Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final PEIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and to the public who are interested in the Proposed Project.

Response Req'd

SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Robert Dalbeck, Assistant Air Quality Specialist, at RDalbeck@aqmd.gov or (909) 396-2139, should you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

Attachment
LS:RD
ORC181219-04
Control Number

[6] California Air Resources Board. August 27, 1998. Resolution 98-35. Accessed at: http://www.arb.ca.gov/regact/diesltac/diesltac.htm.

[7] DPEIR. Section 4.2, *Air Quality,* Page 4.2-40 through 4.2-41.

ATTACHMENT

Air Quality and Health Risk Assessment (HRA) Analyses

Health Risk Assessment Analysis from Freeways and Other Sources of Air Pollution

1. Notwithstanding the court rulings, SCAQMD staff recognizes that Lead Agencies that approve CEQA documents retain the authority to include any additional information they deem relevant to assessing and mitigating the environmental impacts of a project. Because of SCAQMD's concern about the potential public health impacts of siting sensitive populations within a close proximity to major sources of air pollution, such as natural gas power plant facilities, landfills, and freeways, SCAQMD staff recommends that the Lead Agency review and consider the following comments when making local planning and land use decisions.

Health Impacts

Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptors include schools, daycare centers, nursing homes, elderly care facilities, hospitals, and residential dwelling units. As stated above, the Proposed Project will include, among others, construction of 250 residential units. Based on a review of Exhibit 3-2, *Local Vicinity,* in the DPEIR and aerial photographs, SCAQMD staff found that the Proposed Project is located adjacent to multiple sources of air pollution, such as the AES power plant, the Ascon Landfill site, and State Route 1 (SR-1). Additionally, the Proposed Project was historically used as a fuel oil storage facility containing three above-ground, 25 million-gallon tanks, as well as other oil-related facilities including pipelines and ancillary buildings[8]. Residents living at the Proposed Project would likely be exposed to toxic air contaminants (TACs) such as DPM from the transportation and idling of heavy-duty, diesel-fueled trucks associated with the nearby land uses. Therefore, SCAQMD staff recommends that the Lead Agency consider health impacts on future residents living at the Proposed Project by performing a HRA analysis to disclose the potential health risks on future residents at the Proposed Project in the Final PEIR[9]. This will facilitate the purpose and goal of CEQA on public disclosure and provide decision-makers with meaningful information to make an informed decision on project approval. This will also foster informed public participation by providing the public with information that is needed to understand the potential health risks from living in close proximity to sources of air pollution.

HRA Analysis + Public Disclosure

Guidance on Siting Sensitive Receptors Near Freeways and Other Sources of Air Pollution

2. SCAQMD staff recognizes that there are many factors lead agencies must consider when making local planning and land use decisions. To facilitate stronger collaboration between lead agencies and SCAQMD to reduce community exposure to source-specific and cumulative air pollution impacts, SCAQMD adopted the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* in 2005[10]. This Guidance document provides recommended policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A*

Incompatible Land Use?

[8] DPEIR. Section 2.4.1. *Property History*. Page 2-15.

[9] SCAQMD has developed the CEQA significance threshold of 10 in one million for cancer risk. When SCAQMD acts as the Lead Agency, SCAQMD staff conducts a HRA, compares the maximum cancer risk to the threshold of 10 in one million to determine the level of significance for health risk impacts, and identifies mitigation measures if the risk is found to be significant.

[10] South Coast Air Quality Management District. May 2005. "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning" Accessed at: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

Community Health Perspective, which can be found at: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Enhanced Filtration Units and Limitations

3. Many strategies are available to reduce exposure, including, but not limited to, building filtration systems with Minimum Efficiency Reporting Value (MERV) 13 or better, or in some cases, MERV 15 or better is recommended; building design, orientation, location; vegetation barriers or landscaping screening, etc. Because of the potential adverse health risks involved with siting sensitive receptors near land uses that emit TACs and/or attract or generate heavy-duty, diesel-fueled truck trips, such as landfills and power-generating facilities, it is essential that any proposed strategy must be carefully evaluated before implementation. SCAQMD staff recommends that the Lead Agency require the installation of MERV 13 filters or better at the Proposed Project and incorporate the following comments in the Final PEIR.

Filtration Systems in EACH UNIT

SCAQMD staff also recommends that the Lead Agency consider the limitations of the enhanced filtration. For example, in a study that SCAQMD conducted to investigate filters[11], a cost burden is expected to be within the range of $120 to $240 per year to replace each filter. The initial start-up cost could substantially increase if an HVAC system needs to be installed. In addition, because the filters would not have any effectiveness unless the HVAC system is running, there may be increased energy costs to the residents. It is typically assumed that the filters operate 100 percent of the time while residents are indoors, and the environmental analysis does not generally account for the times when the residents have their windows or doors open or are in common space areas of the project. Moreover, these filters have no ability to filter out any toxic gases from vehicle exhaust. Therefore, the presumed effectiveness and feasibility of any filtration units should be carefully evaluated in more detail prior to assuming that they will sufficiently alleviate TAC exposures.

Ongoing Costs of Electricity & Filters

Enforceability of Enhanced Filtration Units

4. If enhanced filtration units are required for the Proposed Project, and to ensure that they are enforceable throughout the lifetime of the Proposed Project and effective in reducing exposures to TACs, SCAQMD staff recommends that the Lead Agency make the installation of enhanced filtration units a project design feature and provide additional details regarding the ongoing, regular maintenance, and monitoring of filters in the Final PEIR. To facilitate a good-faith effort at full disclosure and provide useful information to future residents at the Proposed Project, at a minimum, the Final PEIR should include the following information:

   a) Disclose the potential health impacts to prospective residents from living in a close proximity to sources of air pollution (e.g., power plant, landfill, SR-1 etc.) and the reduced effectiveness of the air filtration system when windows are open and/or when residents are outdoors (e.g., in the common usable open space areas);

Required Ongoing Responsibililty for Maintenance - City?

   b) Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are installed on-site at the Proposed Project before a permit of occupancy is issued;

   c) Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are inspected and maintained regularly;

[11] This study evaluated filters rated MERV 13 or better. Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf. Also see 2012 Peer Review Journal article by SCAQMD: https://www.iqair.cn/sites/default/files/documents/Polidori-et-al-2012.pdf.

d) Disclose the potential increase in energy costs for running the HVAC system to prospective residents;
e) Provide information to residents on where the MERV filers can be purchased;
f) Provide recommended schedules (e.g., every year or every six months) for replacing the enhanced filtration units;
g) Identify the responsible entity such as residents themselves, Homeowner's Association, or property management for ensuring enhanced filtration units are replaced on time, if appropriate and feasible (if residents should be responsible for the periodic and regular purchase and replacement of the enhanced filtration units, the Lead Agency should include this information in the disclosure form);
h) Identify, provide, and disclose ongoing cost-sharing strategies, if any, for replacing the enhanced filtration units;
City-wide Plan?
i) Set City-wide or Proposed Project-specific criteria for assessing progress in installing and replacing the enhanced filtration units; and
j) Develop a City-wide or Proposed Project-specific process for evaluating the effectiveness of the enhanced filtration units.

Recommended Changes to Existing Mitigation Measure (MM) AQ-1

5. In the Air Quality Analysis, the Lead Agency found that implementation of four Tier 3 scrapers during site preparation of the construction phase would likely reduce the air quality impacts resulting from the Proposed Project's construction emissions. As currently written in the DPEIR, MM AQ-1 proposes that diesel-powered scrapers would be powered with CARB certified Tier 3 engines. To further reduce the Proposed Project's construction emissions, SCAQMD staff recommends that the Lead Agency revise MM AQ-1 to require the use of Tier 4 off-road equipment for all units of construction equipment of 50 horsepower (hp) or greater, where available. An example of potential changes are provided below.

MM AQ-1: All off-road diesel-powered equipment of 50 horsepower or greater ~~Scrapers~~ used for construction of the proposed Project or Alternative 1 ~~after January 1, 2020~~ shall meet Tier ~~3~~4 or better off-road emissions standards, where available. To ensure that Tier 4 Final construction equipment or better will be used during construction activities, this requirement shall be included in applicable bid documents, purchase orders, and contracts. Successful contractor(s) must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities.
Construction Equip Limitations/Monitoring by City?
The Construction Contractor shall provide a copy of each unit's certified Tier and/or engine specification to the City of Huntington Beach at the time of mobilization of each applicable unit of equipment. In the event that construction equipment cannot meet the Tier 4 Final engine certification, the Construction Contractor must demonstrate through future study with written findings supported by substantial evidence that is approved by the City of Huntington Beach before using Tier 4 Interim emissions standards compliant construction equipment and/or other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, use of Tier 3 engines, reduction in the number and/or horsepower rating of construction equipment, using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously.

Additional Recommended Mitigation Measures

6. CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse air quality impacts. In the Air Quality Analysis, the Lead Agency estimated 104 lbs/day of NOx emissions during construction before the implementation of MM AQ-1, and 90 lbs/day of NOx emissions after the implementation of MM

Issues During 5-yr Construction (2026)

AQ-1. To further reduce the Proposed Project's construction and operational emissions, SCAQMD staff recommends that the Lead Agency review and incorporate the following mitigation measures in the Final PEIR. For more information on potential mitigation measures as guidance to the Lead Agency, please visit SCAQMD's CEQA Air Quality Handbook website[12].

Construction-Related Mitigation Measures

a) Maintain vehicle and equipment maintenance records for the construction portion of the Proposed Project. All construction equipment and vehicles must be tuned and maintained in compliance with the manufacturer's recommended maintenance schedule and specifications. All maintenance records for each vehicle and equipment and their construction contractor(s) should be made available for inspection and remain on-site for a period of at least two years from completion of construction.

b) Enter into a contract that notifies all construction vendors and contractors that vehicle idling time will be limited to no longer than five minutes or another time-frame as allowed by the California Code of Regulations, Title 13 section 2485 - CARB's Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. For any vehicle delivery that is expected to take longer than five minutes, each project applicant, project sponsor, or public agency will require the vehicle's operator to shut off the engine. Notify the vendors of these idling requirements at the time that the purchase order is issued and again when vehicles enter the gates of the facility. To further ensure that drivers and operators understand the idling requirement, post signs at the entry of the construction site and throughout the Proposed Project site stating that idling longer than five minutes is not permitted.

c) Encourage construction contractors to apply for SCAQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD's website: http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines.

d) Require the use of zero-emission or near-zero emission heavy-duty trucks during construction, such as trucks with natural gas engines that meet CARB's adopted optional NOx emissions standard of 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, require that operators of heavy-duty trucks visiting the Proposed Project during construction commit to using 2010 model year or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards. The Lead Agency should include this requirement in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The Lead Agency should conduct regular inspections to the maximum extent feasible to ensure and enforce compliance.

e) Require that 240-Volt electrical outlets or Level 2 chargers be installed in parking lots that would enable charging of NEVs and/or battery powered vehicles. Vehicles that can operate at least partially on electricity have the ability to substantially reduce the significant NOx and ROG

[12] South Coast Air Quality Management District. Accessed at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

impacts from this project. It is important to make this electrical infrastructure available when the project is built so that it is ready when this technology becomes commercially available. The cost of installing electrical charging equipment onsite is significantly cheaper if completed when the project is built compared to retrofitting an existing building. Therefore, SCAQMD staff recommends that the Lead Agency require the Proposed Project to provide the appropriate infrastructure to facilitate sufficient electric charging for vehicles to plug-in.

f) Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on the building roofs throughout the Proposed Project to generate solar energy for the respective building.

Operation-Related Mitigation Measures

g) Require the use of zero-emission or near-zero emission heavy-duty vendor trucks that service the hotel during operation, such as trucks with natural gas engines that meet CARB's adopted optional NOx emissions standard of 0.02 g/bhp-hr. At a minimum, require that operators of heavy-duty trucks during operation commit to using 2010 model year or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for PM and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. The Lead Agency should conduct regular inspections to the maximum extent feasible to ensure and enforce compliance.

h) Provide incentives for employees in order to encourage the use of public transportation or carpooling, such as discounted transit passes or carpool rebates.

i) Implement a rideshare program for employees and set a goal to achieve a certain participation rate over a period of time.

j) Require the use of electric landscaping equipment, such as lawn mowers and leaf blowers.

k) Require use of electric or alternatively fueled sweepers with HEPA filters.

l) Maximize the planting of tress in landscaping and parking lots.

m) Use light colored paving and roofing materials.

n) Utilize only Energy Star heating, cooling, and lighting devices, and appliances.

o) Use of water-based or low VOC cleaning products that go beyond the requirements under SCAQMD Rule 1113.

Compliance with SCAQMD Rules

7. As stated above, the Proposed Project was historically used as a fuel oil storage facility containing three above-ground, 25 million-gallon tanks, as well as other oil-related facilities including pipelines and ancillary buildings[13]. While the Proposed Project site has been remediated, and in the event that during soil disturbance activities such as grading, petroleum hydrocarbons are encountered that may cause residual VOCs to become airborne, the Lead Agency should include a discussion to demonstrate compliance with SCAQMD Rule 1166 – Volatile Organic Compound Emissions from

On-going Risk

[13] DPEIR. Section 2.4.1. *Property History*. Page 2-15.

Decontamination of Soil[14] and Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants[15] in the Air Quality Section of the Final PEIR.

Other Comment Regarding the Remedial Status of the Ascon Landfill

8. SCAQMD staff found multiple inconsistencies regarding the remedial status of the Ascon Landfill site in the DPEIR. For example, the Lead Agency identified the status of the Ascon Landfill site as "Planning" in Table 4-1[16], then stated "the cleanup status of the ASCON Landfill is currently listed "active" on Envirostor"[17], and that there would be future "remediation activities at Ascon Landfill to the north"[18]. Therefore, SCAQMD staff recommends that the Lead Agency provide additional information to clarify the remedial status consistently throughout the Final PEIR.

Future Activity at Ascon?

[14] South Coast Air Quality Management District. Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil. Accessed at: http://www.aqmd.gov/docs/default-source/rule book/reg-xi/rule-1166.pdf.

[15] South Coast Air Quality Management District. Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants. Accessed at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf.

[16] DPEIR. Table 4-1, *Approved And Pending Projects In The Cities Of Huntington Beach, Newport Beach, And Costa Mesa,* Page 4-6.

[17] DPEIR. Section 4.7, *Hazards and Hazardous Materials,* Page 4.7-14.

[18] DPEIR. Section 4.1.6, *Cumulative Impacts,* Page 4.1-22.

Inadequacy of Soil Gas Testing

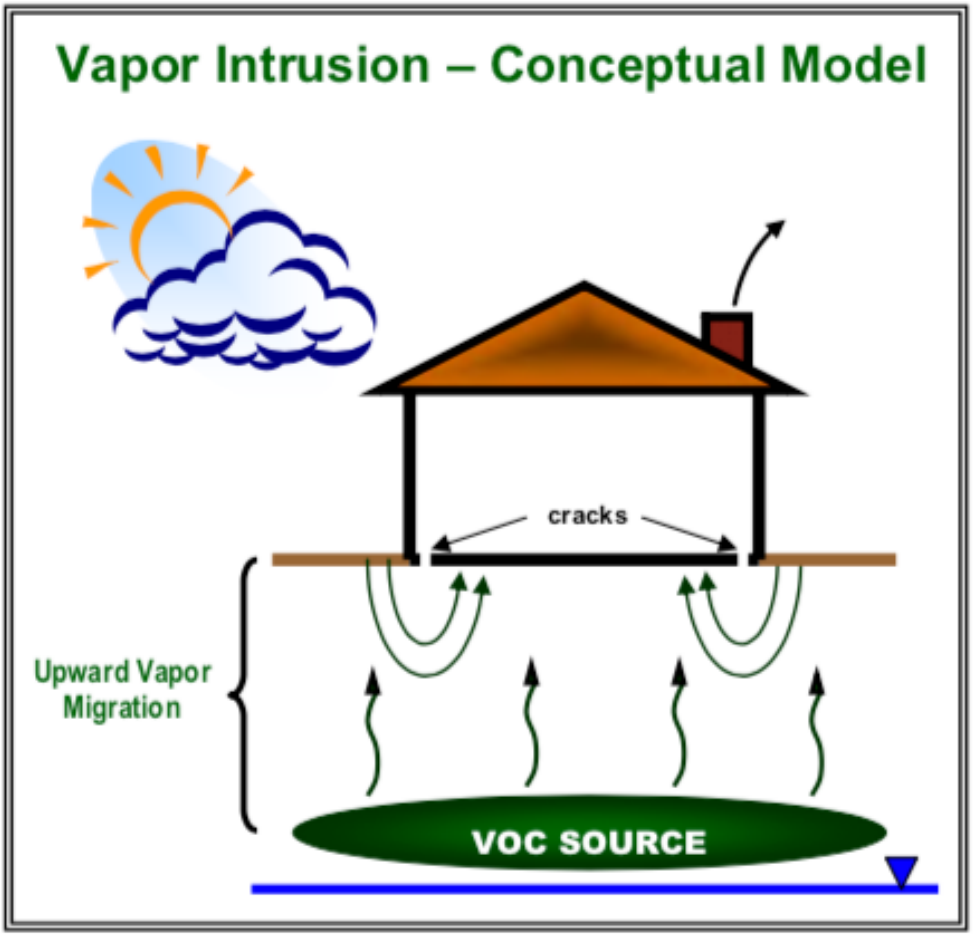


Diagram from cover page of DTSC "GUIDANCE FOR THE EVALUATION AND MITIGATION OF SUBSURFACE VAPOR INTRUSION TO INDOOR AIR

- One of the MOST significant health risks associated with the petroleum contamination on land used planned for residential use is the migration of hazardous vapors into building structures, which poses a serious hazard to the occupants.
- The volatile organic compounds (VOCs) can build up beneath the foundations of the building, concentrate, and subsequently leak inside the interior.
- A full assessment of VOCs needs to be completed in areas of known contamination and planned development; this has not been done at this property.
- In Dec 2013, a total of 14 soil gas locations were tested, which showed multiple tests with VOCs exceeding regulatory screening levels including: *benzene, ethylbenzene, naphthalene, chloroform, 1.3.5- trimethylbenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene*.

- In 2016, a total of 8 soil gas locations were tested, but ONLY for methane.
- In both cases the test locations were **DID NOT INCLUDE any tests under the location of the oil storage tanks themselves.**
- **A** total of 23 soil gas locations have been sampled at the property; this is less than one per acre! The recommended (per HBFD) sampling on a grid basis (which would probably cost <$60,000) has NOT been performed!

Total petroleum hydrocarbons (**TPH**) is a term used for any mixture of hydrocarbons that are found in crude oil. Chemicals that occur in TPH include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.[1]

MAJOR ERROR Soil Gas Testing and Cancer Assessment

The use of a .001 attenuation faction in the vapor in intrusion risk **is not appropriate for this site!**

2.1.3.8 VOCS IN SOIL GAS

Fourteen soil gas samples were collected on December 6, 2013 at a depth of approximately 3 feet bgs. The soil gas samples were analyzed for VOCs by USEPA Method TO-15 and for TPH as gasoline by USEPA Method TO-3. The VOCs that were detected in soil gas are provided in Table 3 of Appendix A and summarized in the following table. The preliminary screening levels used are from EPA Region 9 for ambient air and have been adjusted by a residential attenuation factor of 0.001 to derive an equivalent soil gas concentration as outlined in DTSCs risk assessment screening guidance (DTSC 2017). TPH as gasoline was nondetect in all 14 soil gas samples analyzed.

Current 2015 EPA guidance and DTSC HERO Note #3 recommends an attenuation factor of **0.03**, **OVER AN ORDER OF MAGNITUDE OFF**

HHRA Note Number 3 – April 2019, DTSC-Modified Screening Levels
Page 12

and commercial/industrial exposure scenarios, and may be used for screening contaminants in indoor air. The air screening levels for volatile chemicals also have potential applications for screening soil gas data when used in concert with an appropriate attenuation factor as described in DTSC's 2011 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (2011 VIG). DTSC-recommended default attenuation factors for preliminary screening evaluations can be found in Table 2 of DTSC's 2011 VIG. DTSC also recommends that screening assessments evaluate the default attenuation factors of 0.03 for sub-slab soil gas and "near-source" exterior soil gas, released in 2015 by USEPA.[9] For detailed recommendations on the vapor intrusion to indoor air pathway and evaluation of soil gas and indoor air data, please consult DTSC's 2011 VIG, or contact the DTSC site toxicologist to ensure appropriate use of air screening levels on a site-specific basis.

- The formula in question is used to evaluate the **CANCER RISK** for the area. This mistake would cause the risk to be severely understated. Obviously the accuracy is absolutely CRITICAL.

2018 Groundwater Leach - Monitoring Well Locations

- **The groundwater presents an on-going potential source of toxic vapors that leach into the soil (become gas vapors)**
- The three groundwater monitoring wells were NOT installed within the "down gradient" of the known areas of contamination!
- None of the wells were installed in the areas of former tanks, oil wells, or piping
- The groundwater flows toward the northeast corner of the property. NO wells were installed in this location!
- No consideration of on-going contamination of the groundwater by the HB channel, which is at the top of the groundwater flow, was considered! We cannot assume that water does no penetrate the concrete liner of the channel.
- The Ascon toxic landfill direction N of the MTF is known to have spilled over into the HB channel numerous times, especially after heavy rainfall.
- Other industrial sites, including AES and other industries upstream have been accounted for as potential sources for pollution of the groundwater at MTF.
- The water in the channel is not being tested or monitored.

Summary of Chemicals Detected in Groundwater

Chemical	No. of Detections	Maximum Concentration	Sample with Maximum Concentration	Preliminary Screening Levels[1]	Source[1]
TPH-d (C13-22)	1	760 mg/l	GW-5	640 mg/l	RWQCB
Tert-butyl alcohol (TBA)	2	370 ug/l	GW-2	18,000 ug/l	RWQCB
Ethanol	1	370 ug/l	GW-5	NL	--
Bis(2-ethylhexyl) phthalate	2	23 ug/l	GW-4	32 ug/l	RWQCB

RWQCB = San Francisco Bay Screening Levels – Table F-1b. Groundwater Screening Levels (groundwater not a current or potential drinking water resource)

All of the groundwater samples were nondetect for PCBs, pesticides, including herbicides. Two of the groundwater samples had tert-butyl alcohol with a maximum concentration of 370 ug/l. One of the groundwater samples had an ethanol concentration of 370 ug/l. And two of the samples had minor concentrations of bis(2-ethylhexyl) phthalate at a maximum concentration of 23 ug/l. WGR Southwest, Inc. stated that they believed the occurrence of bis(2-ethylhexyl) phthalate was associated with the PVC used as the casing for the temporary groundwater well points. These concentrations were compared to screening levels established by the DTSC and San Francisco RWQCB.

Division of Toxicology **September 1999**

1.5 HOW CAN TPH AFFECT MY BODY?

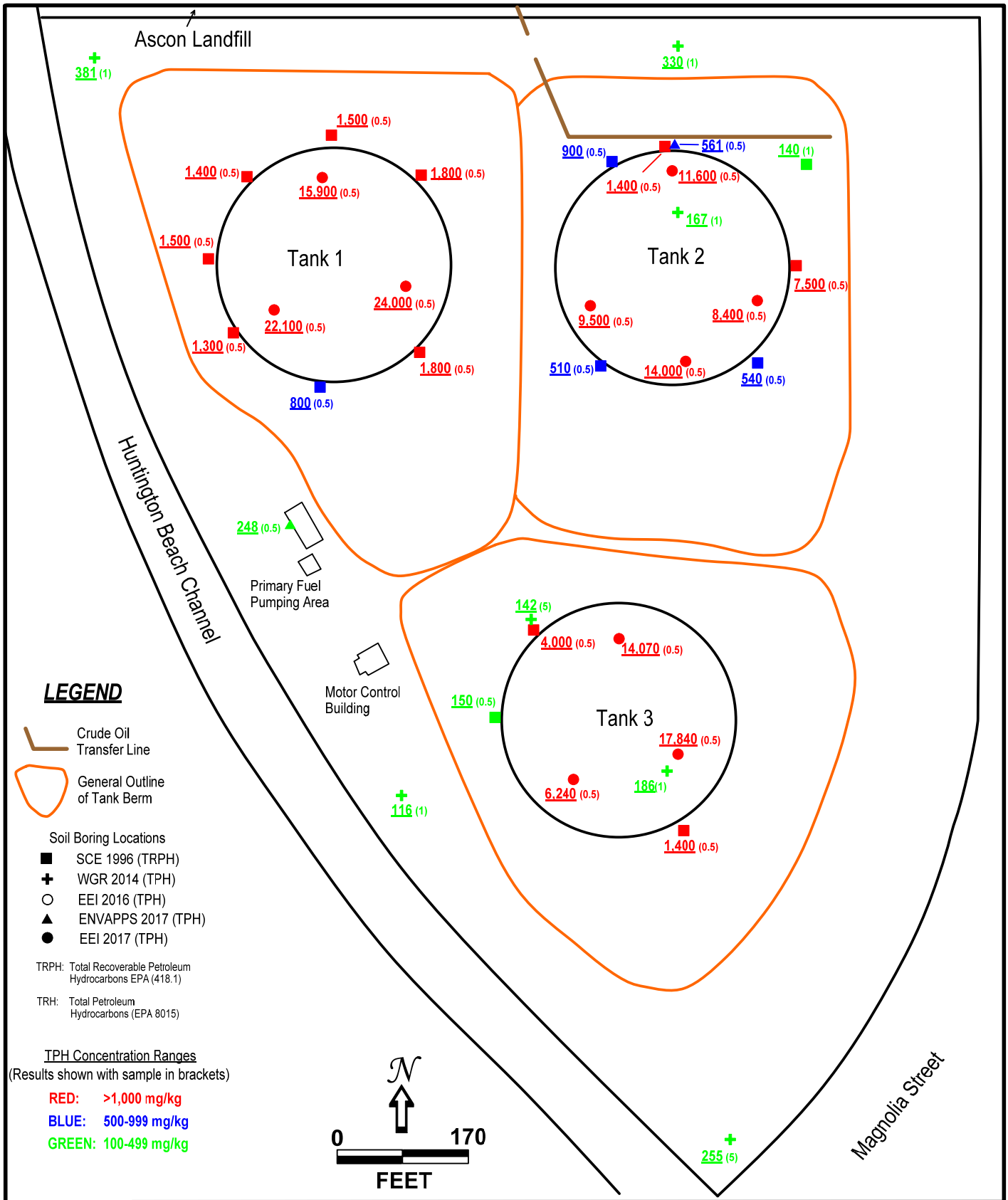
Health effects from exposure to TPH depend on many factors. These include the types of chemical compounds in the TPH, how long the exposure lasts, and the amount of the chemicals contacted. Very little is known about the toxicity of many TPH compounds. Until more information is available, information about health effects of TPH must be based on specific compounds or petroleum products that have been studied.

The compounds in different TPH fractions affect the body in different ways. Some of the TPH compounds, particularly the smaller compounds such as benzene, toluene, and xylene (which are present in gasoline), can affect the human central nervous system. If exposures are high enough, death can occur. Breathing toluene at concentrations greater than 100 parts per million (100 ppm) for more than several hours can cause fatigue, headache, nausea, and drowsiness. When exposure is stopped, the symptoms will go away. However, if someone is exposed for a long time, permanent damage to the central nervous system can occur. One TPH compound (n-hexane) can affect the central nervous system in a different way, causing a nerve disorder called "peripheral neuropathy" characterized by numbness in the feet and legs and, in severe cases, paralysis. This has occurred in workers exposed to 500–2,500 ppm of n-hexane in the air. Swallowing some petroleum products such as gasoline and kerosene causes irritation of the throat and stomach, central nervous system depression, difficulty breathing, and pneumonia from breathing liquid into the lungs. The compounds in some TPH fractions can also affect the blood, immune system, liver, spleen, kidneys, developing fetus, and lungs. Certain TPH compounds can be irritating to the skin and eyes. Other TPH compounds, such as some mineral oils, are not very toxic and are used in foods.

To protect the public from the harmful effects of toxic chemicals and to find ways to treat people who have been harmed, scientists use many tests.

One way to see if a chemical will hurt people is to learn how the chemical is absorbed, used, and released by the body; for some chemicals, animal testing may be necessary. Animal testing may also be used to identify health effects such as cancer or birth defects. Without laboratory animals, scientists would lose a basic method to get information needed to make wise decisions to protect public health. Scientists have the responsibility to treat research animals with care and compassion. Laws today protect the welfare of research animals, and scientists must comply with strict animal care guidelines. Animal studies have shown effects on the lungs, central nervous system, liver, kidney, developing fetus, and reproductive system from exposure to TPH compounds, generally after breathing or swallowing the compounds.

One TPH compound (benzene) has been shown to cause cancer (leukemia) in people. The International Agency for Research on Cancer (IARC) has determined that benzene is carcinogenic to humans (Group 1 classification). Some other TPH compounds or petroleum products, such as benzo(a)pyrene and gasoline, are considered to be probably and possibly carcinogenic to humans (IARC Groups 2A and 2B, respectively) based on cancer studies in people and animals. Most of the other TPH compounds and products are considered not classifiable (Group 3) by IARC.



TAIT
RISING TO THE CHALLENGE
ENVIRONMENTAL SERVICES, INC.
701 NORTH PARKCENTER DRIVE
SANTA ANA, CALIFORNIA 92705
(714) 560-8200
(714) 560-8235 FAX

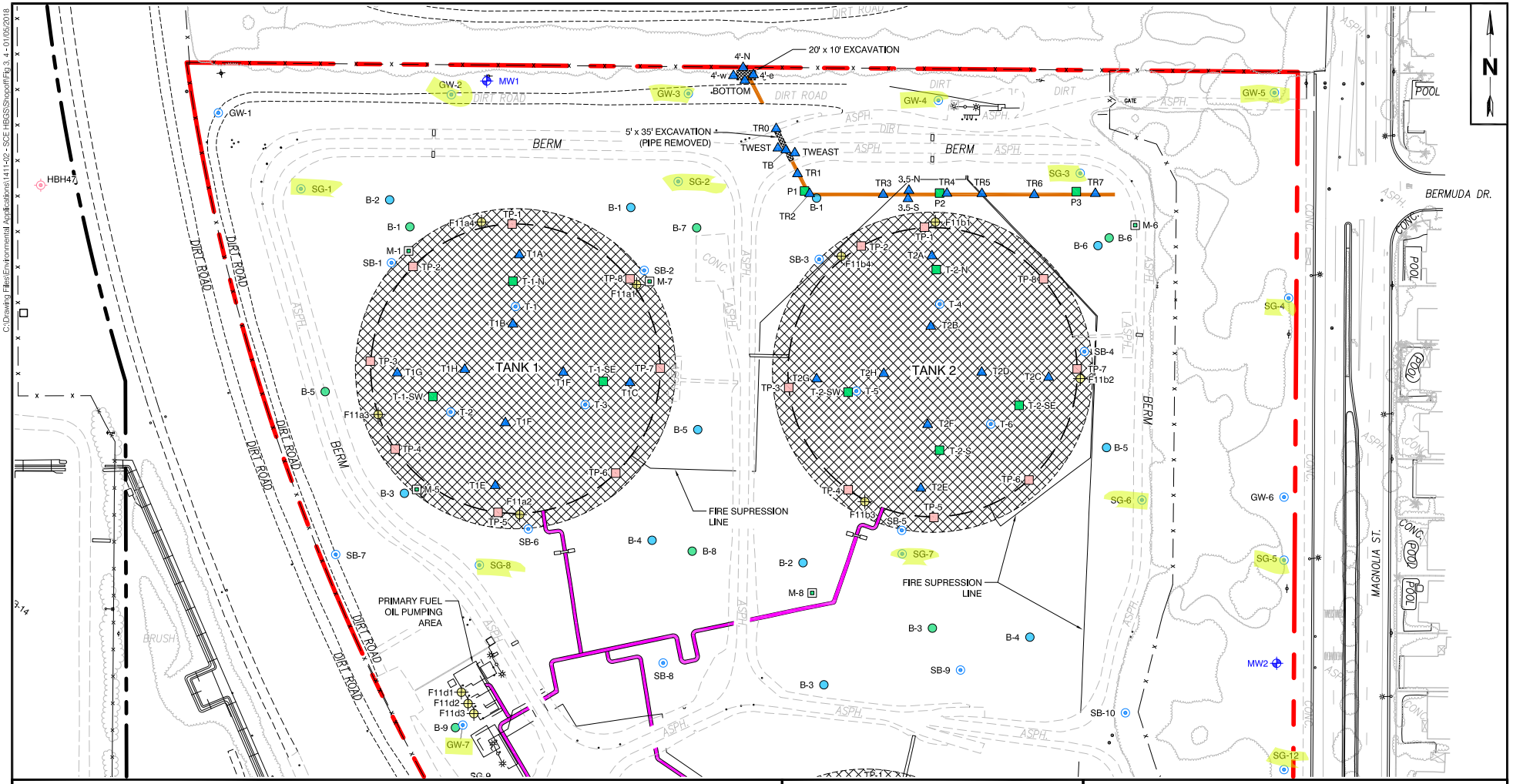
TRPH/TPH SOIL SAMPLE SUMMARY MAP
PRE-REMEDIATION

SHOPOFF-HUNTINGTON BEACH TANK FARM
21845 MAGNOLIA STREET
HUNTINGTON BEACH, CALIFORNIA

Figure 3 | March 2018

RED CIRCLES under tanks show high concentrations of TPH in soil -- but these areas were never tested for soil gas or groundwater contaminents!

These yellow highlighted areas are the only ones tested for soil gas or groundwater contamination



LEGEND

- T-2-N Soil Sample Location (EEI, 2017)
- T2H Soil Sample Location (WGR, 2017)
- MW2 Proposed Groundwater Monitoring Well Location
- F11d Soil Boring Location (EnvApps, 2016)
- B-6 Soil Boring Location (SCE, Feb 23, 1996)
- TP-8 Test Pit (SCE, Feb 23, 1996)
- B-10 Soil Boring Location (EEI, Jan 15, 2016)
- M8 Soil Methane Sample (EEI, Feb 15, 2016)
- SB-1 Soil Sample Location (WGR, Dec 2013)
- T-1 Soil Sample Location (WGR, Dec 2013)
- GW-1 Groundwater Sample Location (WGR, Dec 2013)
- SG-1 Soil Gas Sample Location (WGR, Dec 2013)
- Former SCE HBGS Property Boundary
- Shopoff Property Boundary
- Above Ground Fuel Oil Pipelines (Removed)
- Crude Oil Transfer Line (Removed)
- Approximate Remedial Excavation
- Former Above Ground Storage Tank

Note:
Date in parenthesis is date of report

ENVAPPS
Environmental Applications, Inc.
2130 Huntington Drive, Suite 300
South Pasadena, California 91030

0 100 200
APPROXIMATE SCALE IN FEET

Figure 3 – EPTC TANKS 1 AND 2

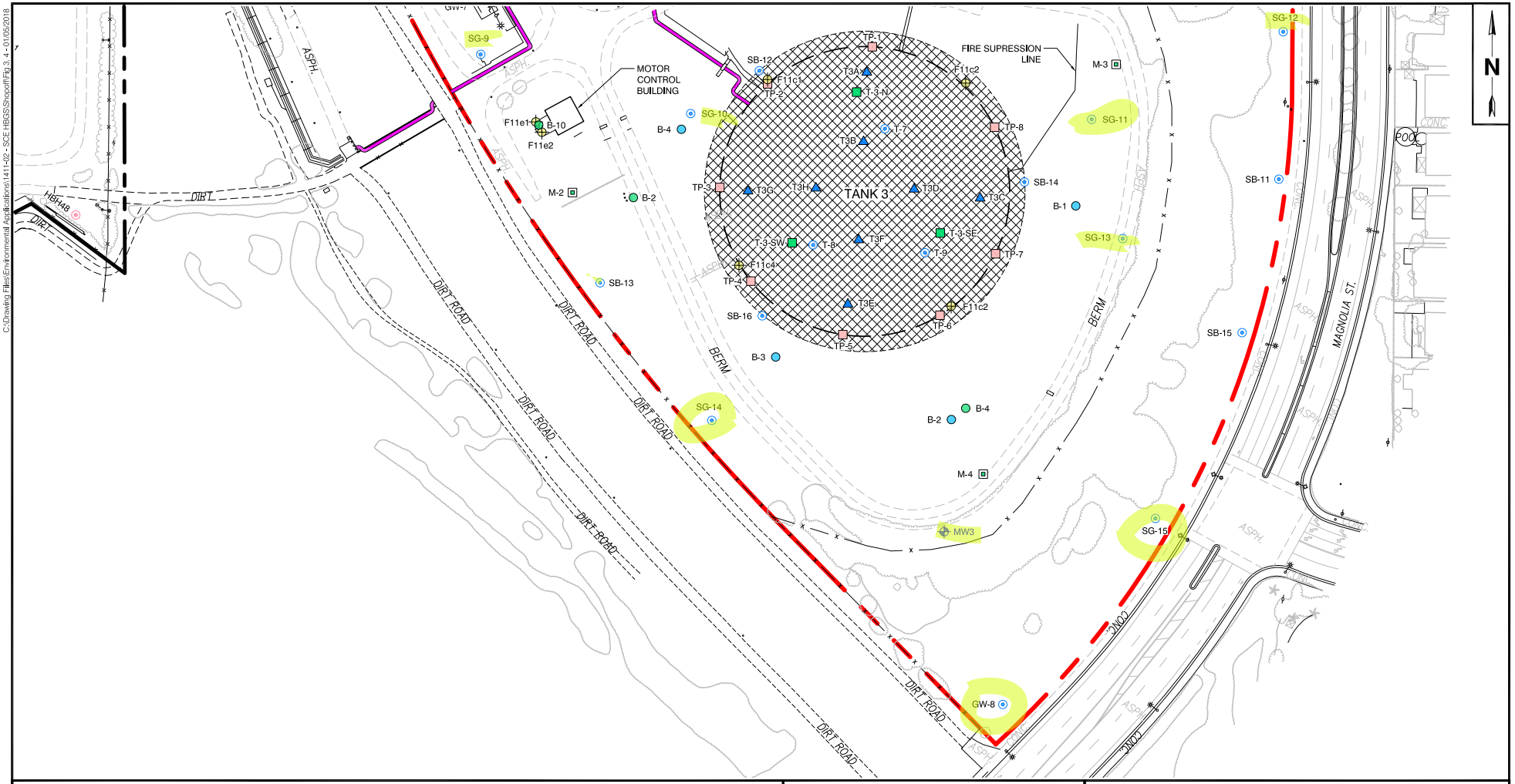
Project: Former Southern California Edison
Shopoff Portion
Huntington Beach Generating Station
21730 Newland Street
Huntington Beach, California 92646

Project# 1411-02

Date: January 5, 2018

These yellow highlighted areas are the only ones tested for soil gas or groundwater contamination

C:\Drawing Files\Environmental Applications\1411-02 - SCE HBGS\Shopoff\Fig 3, 4 - 01/05/2018



LEGEND

- T-3-N Soil Sample Location (EEI, 2017)
- T3H Soil Sample Location (WGR, 2017)
- MW2 Proposed Groundwater Monitoring Well Location
- F11d Soil Boring Location (EnvApps, 2016)
- B-6 Soil Boring Location (SCE, Feb 23, 1996)
- TP-8 Test Pit (SCE, Feb 23, 1996)
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- Former SCE HBGS Property Boundary
- Shopoff Property Boundary
- Above Ground Fuel Oil Pipelines (Removed)
- Approximate Remedial Excavation
- Former Above Ground Storage Tank

Note:
Date in parenthesis is date of report

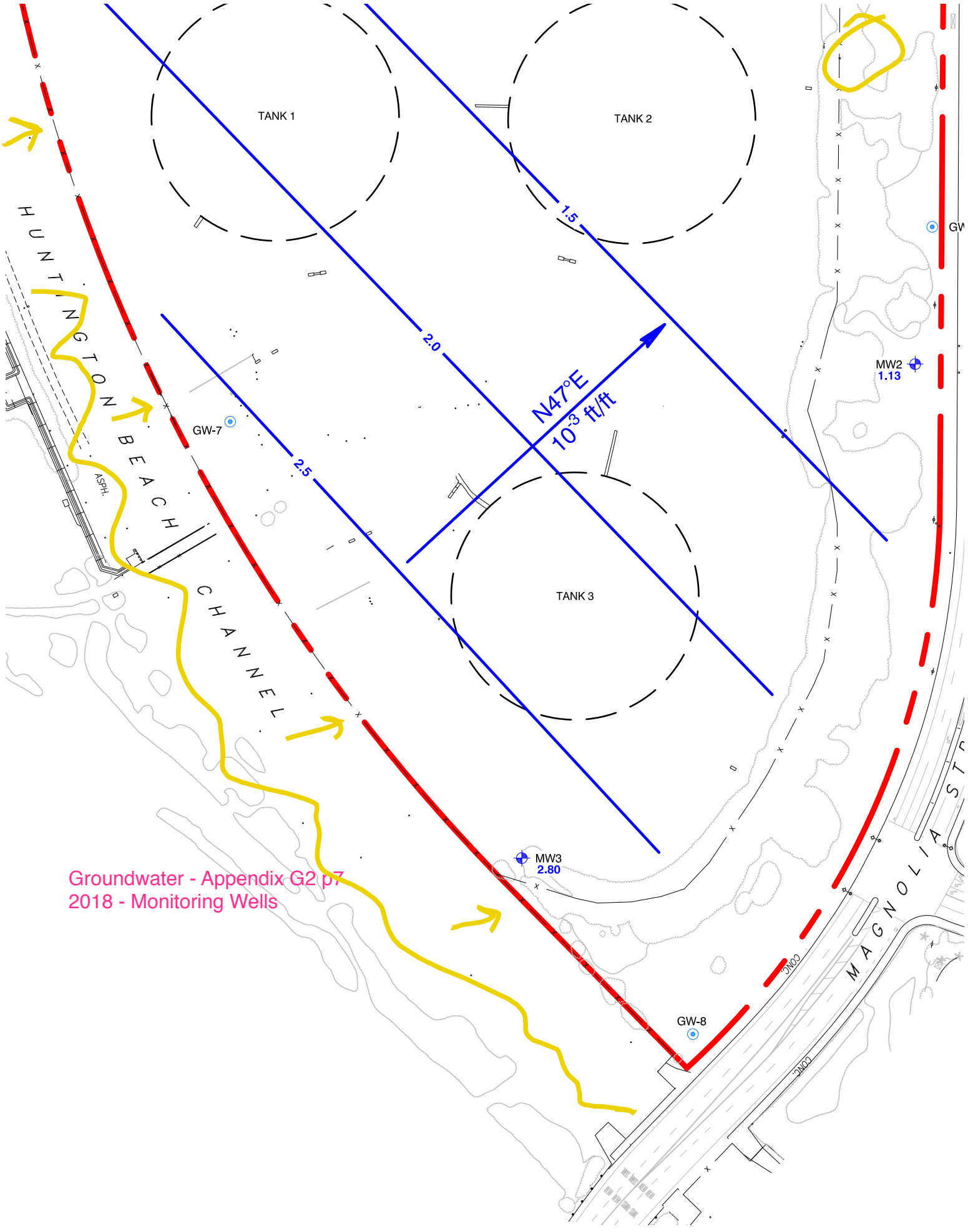
ENVAPPS
Environmental Applications, Inc.
2130 Huntington Drive, Suite 300
South Pasadena, California 91030

0 100 200
APPROXIMATE SCALE IN FEET

Figure 4 – EPTC TANK 3

Project: Former Southern California Edison
Shopoff Portion
Huntington Beach Generating Station
21730 Newland Street
Huntington Beach, California 92646

Project# 1411-02 Date: January 5, 2018



Groundwater - Appendix G2 p7
2018 - Monitoring Wells

Listen to the HBFD!

Valid concerns expressed by the HBFD have not been given adequate consideration.

Review of Existing Reports
Magnolia Tank Farm Site
21845 & 22011 Magnolia Street
Huntington Beach, California

The City of Huntington Beach Fire Department (HBFD) has reviewed the existing available reports of site investigations at 21845 & 22011 Magnolia Street in the City of Huntington Beach, California (the Site). The review was to determine if the Site is in compliance with the residential requirements of CS 429 and 431-92. The following documents were reviewed:

Phase II Site Assessment Plains Huntington Beach Terminal, 21845 & 22011 Magnolia Street Huntington Beach, CA (WGR, March 25, 2014).

Remedial Excavation Summary Report Aboveground Storage Tank (AST) T3, Plains Huntington Beach Terminal, 21845 & 22011 Magnolia Street Huntington Beach, CA. (WGR, May 26, 2017).

Remedial Excavation Summary Report Aboveground Storage Tanks (AST's) T1 and T2, Plains Huntington Beach Terminal 21845 & 22011 Magnolia Street Huntington Beach, CA (WGR, June 19, 2017).

Remedial Excavation Summary Report Crude Oil Transfer Lines Plains Huntington Beach Terminal 21845 & 22011 Magnolia Street Huntington Beach, CA, (WGR, June 19, 2017).

Fluid Migration Barrier Trench Installation Work Plan, Plains West Coast Terminals, LLC - Huntington Beach Terminal (WGR, June 8, 2017).

Human Health Risk Assessment Update for Huntington Beach Terminal Property for SLF-HB Magnolia, LLC (PlaceWorks, December 2017).

Data Review and Recommendations for Potential Residential Use of the Site

1. Data Gaps

The Human Health Risk Assessment Update (HHRA) for Huntington Beach Terminal Property for SLF-HB Magnolia, LLC, prepared by PlaceWorks (December 2017) was received on December 14, 2017. The HHRA has been prepared professionally and is complete; however, the data used in the HHRA are based on the limited investigations conducted at different times for different purposes, and not for the purpose of evaluating residential land use.

Apparently, the HHRA was prepared for a portion of the Site and not for the entire Site designated for residential use. It is not clear which area at the Site has been designated for residential development.

Data Gathering Incomplete, Random

The Phase II site assessment was conducted to evaluate general soil and groundwater at the Site; there was no specific future development of the Site known at that time. Limited soil gas sampling was also conducted. The later investigations for the tank and piping removal covered demolition of the tanks and collection of confirmation soil samples within the footprints of the tanks. The future use of the Site following removal of the tanks was not known at the time of investigation; therefore, the soil sampling was limited to the interior of the tank footprints.

There is known soil and groundwater contamination north of the Site on the former Ascon Landfill property, which was used as a hazardous waste disposal facility from 1938 to 1984. Materials disposed at Ascon landfill included drilling muds and oilfield wastes (crude oil and tar), fuel oils, phenolic wastes, mercaptans, styrene, and synthetic rubber. In addition, chromic and sulfuric acids,

aluminum slag, and magnesium and potassium chloride were reportedly deposited in the landfill (WGR, 2014). The Department of Toxics Substances Control (DTSC) issued an Imminent and Substantial Endangerment Determination and Remedial Action Order (Docket No. I&SE-RAO 02/03-018) in 2003 for the Ascon Landfill. The groundwater on the Ascon property was found to be contaminated and non-aqueous phase liquid (NAPL) was detected at some locations in investigations conducted in December 2004 by Geosyntec. A remedial action plan (RAP) for the Ascon Landfill was approved by DTSC in June 2015, but the remediation has not yet been completed.

A limited soil excavation was conducted when a former crude oil transfer pipeline north of former Tank 2 was removed when crude oil was found to be migrating onto the tank farm from the Ascon Landfill. Soil with high gasoline range TPH (7,000 mg/kg) was found at 4 feet bgs, which was later excavated within an area about 10 feet by 20 feet to a depth of 6 feet bgs (WGR - June 19, 2017). WGR submitted a work plan in June 2017 to install a barrier trench at the north-end of the former tank farm, adjacent to the Ascon Landfill, to minimize the potential for crude oil present at the Ascon landfill from migrating onto the Site.

Fifteen soil gas probes were installed as part of the 2014 investigation where 14 soil gas samples were sampled at a depth of 3 feet bgs from the probes, except for SG-9 (WGR, 2014). TPH as gasoline only using method TO-3 were measured and found to be below the detection limit of 1.5 ppmv. VOCs were detected including benzene, toluene, ethyl-benzene and xylenes in 7 of the 14 soil gas samples by method TO-15. Additional VOCs were detected including chloroform, naphthalene, dichlorodifluoromethane (a.k.a. Freon 12), 1,2,4-TMB, 1,3,5-TMB, 2-butanone, 4-etrhyltoluene, and trichlorofluoromethane. The three northern-most soil gas probes were not located close to the northern border of the Site to detect any influence of the Ascon Landfill.

The HHRA acknowledged that (see page 23) a pipeline extends from the Ascon property and may be a potential source of petroleum hydrocarbons at the Site.

Recommendation 1

Sampling on a Grid is required

Residential use of the site requires a full investigation with soil sampling on a grid basis across the entire former tank farm property (the Site) and evaluation of the potential for offsite contamination (i.e., from former Ascon Landfill) to migrate onto the site from neighboring properties. Use of the existing data is insufficient to prepare a Human Health Risk Assessment.

2. The Lead Agency

The HHRA report states (Page 1) that "The HBGS requires site-wide closure under RCRA regulations overseen by the Department of Toxic Substances Control (DTSC) including a RCRA Feasibility Investigation (RFI)". The report identifies that "SCE entered into a Stipulated Judgment with Department of Toxic Substances Control. The Stipulated Judgment required SCE to be responsible for closure and corrective action at all of the facilities (State of California, 1995)". These statements show that DTSC is the lead agency for closure of the entire Huntington Beach Generating Station, and not as referred to on page 5 where the HHRA report stated that "The Compilation Report (Tait 2017) indicates that the Huntington Beach Fire Department (HBFD) is the lead oversight regulatory agency for the project."

Recommendation 2

Soil Gas and Groundwater remain concerns. Other agencies should review (i.e., SCAQMD)

Previous limited investigations of the 21845 Magnolia Street property has found both soil gas and groundwater contamination, therefore DTSC and potentially other agencies has the lead and must be involved. This Site has contamination beyond the limits of the HBFD jurisdiction. While HBFD has jurisdiction over the soil contamination at the Site, but because contamination in the groundwater and within the top 5 feet above the groundwater, as well as existence of contamination other than TPH at the Site, other regulatory agencies such as the Orange County Health Agency and/or the DTSC, and/or the Regional Water Quality Control Board shall have the lead and approve use of this property as residential.

HBFD has specifications that address soil (HB CS 431-92) and methane (HB CS 429), which must be met to obtain building permits. HB City Specification 431-92 requires that: "surface structures within 100 feet of the lateral extent of the contaminated soil shall be built with vapor barriers in accordance with applicable City Specifications." Detailed future building plans would be needed to evaluate compliance with this requirement.

3. Methane Testing

There were three former crude oil wells on the tank farm property owned by R. B. Watkins Operations. These wells (Deeble 3, Deeble 4 and Deeble 5) were abandoned in 1972 (WGR, June 19, 2017). In 2016 a methane gas survey was conducted at 8 locations from a depth of 4 feet bgs within the bermed areas of the three former tanks (EEI, 2016). Methane was detected in two samples and the highest methane concentration was given as 14 ppmv in the HHRA, but the data were not included so that the values could not be verified. The locations of the oil and gas wells were not shown on site maps provided in the HHRA, so it is not known how close the 2016 methane soil gas survey at 8 locations within the bermed areas of the three former tanks (EEI, 2016) were to the former oil wells.

Recommendation 3
City of Huntington Beach Specification 429 requires methane testing since the Site is within the Methane Overlay Districts of the City of Huntington Beach General Plan, per City Specification No. 429- Methane District Building Permit Requirements. Methane mitigation may also be required at a distance less than or equal to 1,000 feet from the refuse footprint of any existing or new landfill or disposal site as described in the California Code of Regulations (CCR) Title 27. The landfill or disposal site may be operating or closed, abandoned or inactive. Thus, further testing for the presence of methane gas is required along the northern border of the Site with the Ascon Landfill, and there are requirements for methane mitigation within 100 feet of abandoned oil and gas wells.

4. Former Oil Wells

Gas Well locations not on maps, not targeted

As stated in the HHRA, three former oil producing wells were located on the Site that were drilled in 1955 and 1956 and abandoned in 1972. Before grading permits are issued, the permitting agency may need to implement the State of California Division of Oil, Gas, and Geothermal Resources (DOGGR) Construction Site Well Review Program and re abandon the wells to current standards. The numerous soil investigations that occurred at the Site did not target the locations of the three former oil wells.

Recommendation 4
The area of the former oil wells needs to be determined in comparison to planned future buildings on the Site and soil and soil gas sampling need to be conducted that are appropriate for the planned residential use of the Site.

5. Interim Use of the Site

Interim use of site must be considered

The HHRA report stated (on page 18) that the Site is proposed (and is currently used as) for interim use as a staging area for new construction at the adjacent AES Steam Plant. The present uses of the Site and the specific building plans for the Site were not considered or evaluated in the HHRA.

Recommendation 5
The Site should be re-assessed for any potential contamination during the interim site use as staging area.

6. Review of HHRA

The HHRA indicates (Page1) that for the 2017 RFI, 71 features of interest were identified at the HBGS; however, the HHRA only considers 5 features in the risk assessment. It would be prudent to evaluate the effect of the other 66 features, if any.

The HHRA indicates (Page 2) that a RCRA Facility Investigation Work Plan has been prepared for the former SCE Huntington Beach Generating Station that will include additional investigation on the Site (Environmental Applications, Inc., 2015). It is not clear if such investigation has been completed.

Residential use not compatible with attenuation factor of .001

The HHRA compared the soil gas concentrations to the criteria from the State Water Resources Control Board (SWRCB) Low-Risk Closure Policy for sites with petroleum storage tank releases (SWRCB, 2012). This comparison is not appropriate for a residential site with exposure to indoor air. While the previous soil gas data were compared to the 2017 DTSC SLs or EPA RSLs for ambient air after using the appropriate attenuation factor of 0.001 for future residential uses as a preliminary screening evaluation, the potential risks were not evaluated for all detected chemicals for the indoor air pathway, in the HHRA.

Groundwater pathways and HB channel proximity not considered

The HHRA stated that permanent surface water bodies do not occur on or adjacent to the Site, so no surface water pathway was included. However, the Huntington Beach Drainage Channel bounds the Site to the south and west.

The HHRA updated a prior HHRA completed in 2016. Only TPH was evaluated in the soil. Other chemicals in soil that was not excavated were excluded if the concentrations were less than the preliminary screening levels. This is not the standard procedure used by DTSC for risk assessments.

HHRA requires full evaluation of these considerations and must be updated!

Recommendation 6
Following a full evaluation of soil, soil gas, and groundwater to evaluate all potential risks to future residents on the Site, the HHRA needs to be updated using all the data representative of current conditions and following the DTSC-approved procedures.

7. Missing Reports

The HHRA report refers to the following documents that have not been submitted for review, therefore, the data used in the HHRA could not be verified.

Recommendation 7
It is recommended that in future submittals, the full data set be provided to the HBFD, including the following:

EEI, February 25, 2016, Site Investigation Report, 21845 Magnolia Street, Huntington Beach, California, prepared for Shopoff.

EEI, May 11, 2017, Results of Limited Soil Investigation, 21845 Magnolia Street, Huntington Beach, California, prepared for Shopoff.

EAI., February 15, 2017, RCRA Facility Investigation Report, Shopoff Realty Investments Portion of Former Southern California Edison Huntington Beach Generating Station, 21730 Newland Street, Huntington Beach, California 92646.

EAI, 2015. RCRA Facility Investigation Workplan, Former Southern California Edison Huntington Beach Generating Station. Prepared for Southern California Edison. April 13, 2015

Tait Environmental Services, Inc. 2017. Compilation Report of the Environmental Investigations Shopoff Site, SLFHB Magnolia, LLC. October 16, 2017.

The Shopoff responses to the HBFD issues have been not been at all adequate, ignoring some issues and providing meaningless responses to others, particularly with regarding to the need for more testing. Many responses are simply "will do".

APPROVING THIS SITE POSES AN UNACCEPTABLE RISK of LIABILITY for the city of Huntington Beach

- Approving a project in consideration of its conformity to existing zoning and plans, is one thing. **THIS IS SOMETHING ELSE ENTIRELY!**
- **Approving this project requires a change to the GENERAL PLAN, adoption of a new SPECIFIC PLAN, and REZONING; all made only to accommodate THIS SPECIFIC PROJECT.**
- There will be considerable on-going responsibility to support the recommended filtration and monitoring proposed by the SCAQMD.
- The city would need to be very involved in crafting the language of the disclosures to be made to future residents in order to protect itself.
- This project is nowhere near that completion status that would be required to approve it. Many important items are still on the "will do" list, and the city cannot rely on the DTSC alone.

APPROVING THIS SITE IS UNACCEPTABLE BURDEN ON EXISTING AND FUTURE RESIDENTS!

- The residents of SE Hunting Beach are already suffering greatly from the on-going effects of remediation at Ascon, as well as probable long-term effects from historical problems at Ascon as well as AES.
- PLUS construction at Poseidon will create additional construction problems AND the reverse osmosis process is expected to generate very high noise levels 43.0 dBA at a distance of approximately 1,000 feet!
- This new project will result in dust, release of addition VOCs, and noise including grading equipment, vehicles, and construction itself.
- PLUS, it is anticipated that three pile-drivers would operate simultaneously to create the underground parking area for the hotel.
- The construction will take place OVER A PERIOD OF 5 YEARS.

NO! THIS IS NOT THE TIME, THIS IS NOT THE PLACE, THE NEGATIVES FAR OUTWEIGH ANY POSITIVES!

Ramos, Ricky

From: James, Jane
Sent: Wednesday, August 28, 2019 10:30 AM
To: Ramos, Ricky
Subject: FW: Planning Commission Study Session 8/27/19

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Shammy Dingus <shammyd@mac.com>
Sent: Wednesday, August 28, 2019 9:53 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Grant, Michael <Michael.Grant@surfcity-hb.org>; Garcia, Pat <Pat.Garcia@surfcity-hb.org>; Kalmick, Dan <Dan.Kalmick@surfcity-hb.org>; bperkins@socal.rr.com; Scandura, John <john.scandura@surfcity-hb.org>; Mandic, Connie <Connie.Mandic@surfcity-hb.org>; Ray, Alan <Alan.Ray@surfcity-hb.org>
Subject: Planning Commission Study Session 8/27/19

Dear Commissioners,

I feel compelled to write this letter.

You were given a good deal of misinformation by the geologist who spoke last night. For example:

- he said the soil gas tests did not show VOCs exceeding toxic levels. But THEY DID,
- he said the groundwater tests did not show VOCs exceeding toxic levels. But THEY DID,
- he said the Human Health Risk Assessment used the most conservative values. BUT IT DID NOT. In fact, the calculation contained a major error, using an attenuation factor of **.001** when the EPA and DTSC rules specify a value of **.03**. The resulting HHRA calculation UNDERSTATED THE RISK FACTOR BY MORE THAN AN ORDER OF MAGNITUDE.

The true results of the soil gas and groundwater tests, that showed toxins in both, which exceed approved levels, can be found in pp 20-22 of Appendix G on the city website.

There are other serious problems with the EIR I did not have enough time to cover regarding the groundwater.
- The ground water is very shallow, only 6-8 ft., at some locations. Think about that with respect to the anticipated rise in sea level.
- Because it is so shallow it is likely an on-going contributor to the toxic soil gases.
- Based on the direction of the groundwater flow, which is E/NE, the contaminant source is likely the HB channel.
- The HB channel has an earthen bottom and there has been no investigation at all of the HB channel's toxicity or its contribution to the toxic VOCs in the groundwater of the MTF.
- Ascon, for example, has a history of overflowing into the channel during rains. The same may be true for AES and other upstream industrial sites.

There are reasons to suspect more misinformation in testimony to the council. The EIR project has relied on a revolving door of experts — including at the DTSC. And the regulatory framework has been mixed up, passed around, and confused.

One thing is VERY CLEAR. The EIR contains a whole lot of assumptions, calculations, and projections that were based on VERY LITTLE ACTUAL DATA.

I believe that it is completely inappropriate to move forward with any decision-making on the Magnolia Tank Farm in the near future. If this property is zoned for any form of residential use the city may face huge liabilities. And at this point the city has been warned repeatedly of the dangers of going forward.

Carolyn "Shammy" Dingus
shammyd@mac.com
808-778-4013

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 7:57 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Dayna Bellanca <dayna@maryspath.org>
Sent: Saturday, August 24, 2019 5:39 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Hello,

Please refuse any zoning change at the Magnolia Tank Farm which will potentially increase the toxic exposure to our already cumulative toxins from the Ascon landfill. Children have died and more are getting sick.

Thank you,
Dayna Bellanca

--

Dayna Bellanca, Parenting and Child Development Coordinator
Mary's Path

Dayna@MarysPath.org

714-730-0930 ext. 13
18221 E.17th Street
Santa Ana, CA 92705

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MARY'S PATH
Changing Lives Two at a Time

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 7:58 AM
To: Ramos, Ricky
Subject: FW: The Proposed Shopoff Magnolia Tank Farm Project . . . .

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Gino J. Bruno <gbruno@socal.rr.com>
Sent: Saturday, August 24, 2019 8:57 PM
To: CITY COUNCIL <city.council@surfcity-hb.org>; Planning Commission <planning.commission@surfcity-hb.org>
Cc: Kiff, Dave <dave.kiff@surfcity-hb.org>; Luna-Reynosa, Ursula <ursula.luna-reynosa@surfcity-hb.org>; Gates, Michael <Michael.Gates@surfcity-hb.org>
Subject: The Proposed Shopoff Magnolia Tank Farm Project . . . .

City Council Members and Planning Commissioners:

The developer of the Magnolia Tank Farm project is William Shopoff, or entities that he and/or his family controls (individually and collectively, “Shopoff”).

Commencing in at least October 2006 and continuing at least until very recently Shopoff is alleged to have engaged in a laundry list of financial shenanigans and trickeries that, after extensive investigation, resulted in an Enforcement Complaint being filed by FINRA dated January 10, 2019. FINRA (Financial Industry Regulatory Authority) is the not-for-profit organization authorized by Congress to ensure compliance with, among other things, the Securities and Exchange Act of 1934, as amended.

FINRA alleges Shopoff engaged in FRAUD in the sale of various securities relating to investments in proposed real estate developments, all in violation of the Securities and Exchange Act.

Here are only some . . . repeat SOME . . . of the alleged violations of the Securities and Exchange Act, laid out in specific detail in the FINRA complaint:

- From December 2010 through March 2017, Shopoff fraudulently sold nearly $12.6 million of promissory note investments (“Notes”) to at least 29 investors;
- From December 2010 through March 2017 Shopoff failed to disclose that some investment proceeds would actually be transferred to William Shopoff and his personal trust to pay his and his wife's personal expenses;
- From December 2010 through March 2017, Shopoff failed to disclose that some investment proceeds would be used to repay investors in previous Notes (a classic Ponzi scheme) ;
- From December 2010 through March 2017, although William Shopoff and his wife personally guaranteed the investments, Shopoff failed to disclose to the investors that the Shopoffs' assets were largely illiquid;

- From August 2014 through August 2016, Shopoff massively inflated his and his wife's cash assets in a financial statement given to a third-party due diligence provider assessing the Shopoffs' financial wherewithal;

- In October 2006 Shopoff caused to be prepared a certain Private Placement Memorandum (“PPM”) that offered for sale interests in certain real estate developments; the PPM contained misrepresentations and omissions of facts material to investors; and

- In March 2014 Shopoff caused funds to be transferred from real estate trusts into his personal bank account in order to artificially and falsely inflate the appearance of his liquid net worth in anticipation of Private Placement Offerings.

And Mr. Shopoff was doing this while, at the same time, he was schmoozing and in discussions with our City representatives, including elected officials, about his proposed project.

Is this someone our City should be doing business with while these very serious accusations of Federal law violations are pending?

I encourage you to read the detailed specifics of the complaint at:
http://www.finra.org/sites/default/files/fda_documents/2016048393501%20Shopoff%20Securities%2C%20Inc.%20BD%20142866%20William%20A.%20Shopoff%20CRD%201273471%20Stephen%20R.%20Shopoff%20CRD%205276325%20Complaint%20sl.pdf

Thank you.

Gino J. Bruno
Huntington Beach

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 27, 2019 7:58 AM
To: Ramos, Ricky
Subject: FW: 19-902 Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: K Carroll <kcrissie7@gmail.com>
Sent: Monday, August 26, 2019 8:03 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: 19-902 Magnolia Tank Farm

Dear Planning Commission Members:

I am writing to oppose 19-902 Magnolia Tank Farm. This development will cause continue health hazards to the residents of Huntington Beach because of the toxic soil. The obvious additional reasons are increased traffic and accidents to the surrounding areas including increased congestion to PCH which is already over it's capacity and the water table. Our resources are over taxed and the resident's quality of life will greatly be impacted by this project. Please vote no on this project.

Thank you.

Kris Carroll

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 7:57 AM
To: Ramos, Ricky
Subject: FW: Shopoff Magnolia Tank Farm Project EIR Deny Vote NO

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: larry mcneely <lmwater@yahoo.com>
Sent: Friday, August 23, 2019 11:03 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Shopoff Magnolia Tank Farm Project EIR Deny Vote NO

Like many in the community I have read the Shopoff EIR which is quite a long document. This EIR has made many points that would give every reason to Deny this project. I am sure that those of you that have actually read it will agree. The one worry that I do have is a commissioner who would approve this because all the eyes (i) are dotted and the Ts crossed would give reason for approval. I must say the Most Important aspect of this review is that its not asking to go over a plan that is allowed, it is asking you to change approved zoning change the General Plan and to make exceptions with a Specific Plan. Based on the facts of these requests this project now falls into the category of Public Approval and Public Benefit which should override all support for a private investors profits motives over the will of the community. So To Be Clear I Ask that this Project Be Denied NO ON SHOPOFF

Thank You fro Your Consideration
Larry Mc Neely

PS. If your running for office listen to the Voters not the Developers they don't vote in our community.

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 7:55 AM
To: Ramos, Ricky
Subject: FW: Please. No more Air Quality stressors near Edison and Eader!

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Sharon M. <marmiejoe@msn.com>
Sent: Friday, August 23, 2019 3:27 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Please. No more Air Quality stressors near Edison and Eader!

Dear Planning Commissioners,
Please read this newly released study on the implications of air quality on the developing brains of children; and the risk already experienced by our children in Southeast Huntington Beach.

We implore you to refuse any zoning changes on the Magnolia Tank Farm, in light of the risk of serious mental illness due to the accumulated air quality issues we already experience.

https://www.medscape.com/viewarticle/917128?fbclid=IwAR1DdbgaFrtq7bnzSkeqG04VuW-VAyAuvfu2tTce3QYBhxcryHbEyK58z_8

Air Pollution Linked to Psychiatric Illness

New research has uncovered a strong link between air pollution exposure and an increase in the prevalence of psychiatric disorders, especially bipolar disorder.

www.medscape.com

Thank you,
Les and Sharon Messick

Ramos, Ricky

From: James, Jane
Sent: Thursday, August 29, 2019 8:13 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Foad J <jahansf01@gmail.com>
Sent: Wednesday, August 28, 2019 9:31 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Dear Commissioners,

I am a resident of south east Huntington Beach. I reside on Christine Drive, approximately 600 yards from the tank farm. I am writing to ask you to oppose any re-zoning or development at the tank farm until further testing of the soil is accomplished. During the last few months the ASCON land fill has been undergoing remediation. It has come to a standstill due to high air levels of toxic substances and the discovery of more toxins than previously known. Pit F at the ASCON site contains styrene and is separated from the tank farm by a mere chain link fence. We should not repeat the mistakes made at ASCON earlier this year and subject the residents and children attending the two nearby schools to unacceptable air quality of toxins as measured by AQMD.

Should the planning commission decide to allow development, I strongly urge you to consider the use of this land. The current proposal of a "hostel" like hotel and retail space is inconsistent with the surrounding area. Likewise the high density single family residences proposed will only increase traffic around the schools and PCH. Parking along Magnolia and Banning is already restricted; further development will force residents and guests to park in the adjoining neighborhoods, my neighborhood. I did not see any parking allotted for the "nature center" proposed in the plans nor did it appear there is adequate parking for guests in the proposed development.

My neighborhood has already been impacted by the ASCON cleanup and the AES construction over the past several months. Please consider the environmental issues already known and unknown regarding the tank farm. ASCON will never be completely clean. At present, do we know if the tank farm can be completely clean?

Maureen Connolly

Ramos, Ricky

From: James, Jane
Sent: Tuesday, August 27, 2019 4:39 PM
To: Ramos, Ricky
Subject: FW: PC review of the Magnolia Tank Farm Aug 2019

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: M Dardis <mdardis@verizon.net>
Sent: Tuesday, August 27, 2019 4:29 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: mdardis@verizon.net
Subject: PC review of the Magnolia Tank Farm Aug 2019

Distinguished HB Planning Commissioners;
Just have several questions concerning the Magnolia Tank Farm

1.How come the HB paid EIR report did not take into consideration Santa Ana Wind Conditions. The wind will be blowing off the ASCON TOXIC DUMP SITE right into the front doors of the potential Homes being built and into the Shopoff Chalet Hotel including the Dinning room and the food preparation area.

2. We demand core samples 10 meters down and then an explanation what chemicals were found by a highly independent toxic waste chemical lab. The state and city labs are unacceptable. Core samples to be taken every 100 meters from each other. There is no way you can approve this site for Housing let alone for a Chalet Hotel owing to the present and future conditions of the ASCON TOXIC DUMP site.

I remember in the 1970's and 1980's tankers being driven uphill and dumping their liquid loads behind the man made hill. In addition we would like to see the remnants of the IH bulldozer that was used and I believe sunk in one of the lagoons.

Please consider the seriousness of this EMail and take it into consideration by voting NO on the development of this site until we have complete clarification of what is in the soil and the suitable means for removing the TOXIC WASTE. .

Milt Dardis
SEHB resident
714 968 3409

Ramos, Ricky

From: James, Jane
Sent: Thursday, August 22, 2019 11:30 AM
To: Ramos, Ricky
Subject: FW: Tank Farm.

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Mrdi <mrdi2003@yahoo.com>
Sent: Thursday, August 22, 2019 8:59 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Tank Farm.

Building on the Tank Farm Site and exposing all of the future residents
to the contaminants that are present will result in lawsuits from which the City will never recover.

Mrdi

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 7:57 AM
To: Ramos, Ricky
Subject: FW: HB Home owner

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Mrdi <mrdi2003@yahoo.com>
Sent: Saturday, August 24, 2019 9:06 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: HB Home owner

PLEASE REFUSE any zoning change at the Magnolia Tank Farm which will potentially increase toxic exposure to our children and adult residents .

Ramos, Ricky

From: James, Jane
Sent: Wednesday, August 21, 2019 4:25 PM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Steve Farnsworth <hazmn54@gmail.com>
Sent: Wednesday, August 21, 2019 4:21 PM
To: Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Magnolia Tank Farm

Mayor, City Council Members and Planning Commissioners,

I am asking that you delay approving the development of the Magnolia Tank Farm property. I am not asking you to completely deny any development in the future, just delay it until a competent and certified "grid" sampling has been performed at the tank farm site. This grid sampling should be performed both before and after the remediation of the ASCON Superfund site and indicate any hazardous to human health contamination levels are at or below the OSHA and the EPA/DTSC acceptable levels for residential buildings.

Thank you for your consideration regarding this matter.

Steve Farnsworth
HB Resident

Ramos, Ricky

From: James, Jane
Sent: Monday, August 26, 2019 7:58 AM
To: Ramos, Ricky
Subject: FW: ASCON Site

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Tracy MG <t_mg@yahoo.com>
Sent: Saturday, August 24, 2019 10:04 PM
To: Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Subject: ASCON Site

To whom it may concern:

As a resident with children who lives in SE Huntington Beach I implore you go REFUSE any zoning change at the Magnolia Tank Farm which will potentially increase toxic exposure to our already cumulative toxins from Ascon and AES!!

How can you ignore the residents of this city and create such an incredible hazard for us! This is a travesty and I am blown away at the lack of respect for those of us who live here and want to put our trust into local government to keep us out of harms way.

Please keep our citizens and our city safe!!

Tracy Gohl
HB Resident

Sent from my iPhone

August 30, 2019

Ricky Ramos, Senior Planner
City of Huntington Beach
Community Development Department
2000 Main Street
Huntington Beach, CA 92648
rramos@surfcity-hb.org

AES Southland
690 North Studebaker Road
Long Beach, CA 90803
tel 562 493 7891
fax 562 493 7320

RE: Magnolia Tank Farm Project

Dear Mr. Ramos,

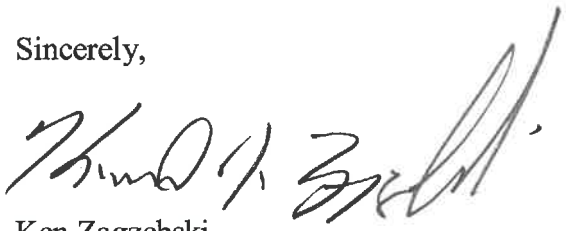
AES Huntington Beach Energy, LLC ("AES") is the owner of the Huntington Beach Energy Project ("HBEP"), an 644 megawatt natural-gas fired power plant located at 21730 Newland Street, that is currently nearing the end of the first phase of construction. The HBEP is a critical source of electrical generating capacity needed to ensure electrical reliability in southern California. The HBEP has been designed to be consistent and compliant with the conclusions and Conditions of Certification of the California Energy Commission's Final Decision adopted April 12, 2017. The CEC's Final Decision determined "that the proposed amended Huntington Beach Energy Project ("Amended Project") will, as mitigated, have no significant impacts on the environment and will comply with all applicable laws, ordinances, regulations, and standards ("LORS")," and found that "Existing governmental land use restrictions are sufficient to adequately control population density in the area surrounding the facility and may be reasonably expected to ensure public health and safety.[i]" AES continues to work to the conditions of certification as outlined by the California Energy Commission in the November 2014 Application for Certification. These numerous conditions apply to both construction and long-term operation and are found in the referenced AFC in section 6.4.

AES understands that the City of Huntington Beach ("City") is considering amending the land use designations set forth in the General Plan, Zoning Map, Zoning Test, and Local Coastal Program Amendment for the Magnolia Tank Farm Project ("MTFP") site, which is located adjacent to the HBEP, including the establishment of a Specific Plan for the site. AES appreciates that the draft Specific Plan discusses and recognizes the historical and existing industrial uses of the MTFP site and surrounding areas. AES is confident the City has the regulations, processes and resources in place for evaluating and approving all development projects for the benefit of all residents and businesses, including AES and the HBEP.

AES is a proud member of the Huntington Beach community and supports redevelopment opportunities that will provide long-term benefits to all. Such opportunities that are respectful of existing land uses and businesses offer a win-win scenario for the community.

Please do not hesitate to contact me or Weikko Wirta at 202-476-9156, if you have any questions.

Sincerely,



Ken Zagzebski
President – AES Southland Energy

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[i] Commission Adoption Order, Order No. 17-0412-2 TN-216990, 4-12-2017; Revised Final Decision (SUPERSEDES TN 217462) TN-217788, 5-37-2017.
https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=12-AFC-02C

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 03, 2019 7:36 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Lucy Kaliski <lucykaliski@gmail.com>
Sent: Saturday, August 31, 2019 2:22 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Planning Commission members:

We presently have two huge pollution issues occurring simultaneously in South east HB, (ascon and aes) Both Ascon and AES will be remediated for the next three years MINIMUM, with air quality data already exceeding SCAQMD limits of 50 mq (Eader Elementary shows ranges in the higher 50's to 60's) and thats without much activity at Ascon currently. Its a toxic air nightmare for us and cannot be tolerated.Our children are getting sick, they are growing and incorporating all these toxic substances into their precious little bodies. What kind of long term illnesses will they have as adult? Will they even survive to lead normal lives!

The proposals for another hotel and/or million dollar stack and pack homes will only inundate the traffic issues on Hamilton and Victoria and PCH as well as Hamilton and Magnolia. You are destroying our beautiful beaches our lifestyles! We don't have infrastructure in place or resources (water) to support this in the area.

What are the rules regarding living next to a toxic waste dump? Specifically Pit F which is a STYRENE PIT. AND There ARE NO SAFE LIMITS FOR STYRENE EXPOSURE.

The safety and health of the residents must be protected and we should really heed the lessons of the past, and not keep making the same mistakes as our forefathers.
Ascon and Tank Farm are historically one plot of land, uses were an Airport from 1945-1955
An oil sump dump, and concrete and roofing materials containing asbestos waste dump.Previous citations and rules were changed for the responsible parties to make the land safe but have failed over the years because of the SEVERITY OF THE CHEMICALS THAT WERE DUMPED. I remember when Ascon first tried to clean up this site over 30 years ago, they found it impossible.
Now, there have been three additional pits discovered that weren't even reported as being cleaned just COVERED WITH DIRT that have styrene and

benzene and other chemicals super carcinogenic and these pits butt right up to the Tank Farm chain link fence. These chemicals were found on Tank Farm land and Ascon, so the chemicals have MIGRATED.

To build on Tank Farm is to encourage and undermine the the ongoing remediation at Ascon. This horror needs to stop! At least, until we can ascertain how to CLEAN ASCON WITHOUT POISONING THE RESIDENTS. To open up Tank Farm soil is to open Pandora Box. We just did that with Ascon we should know better now and make the same mistake.
Please consider long term effects, not just the immediate economic values.
Thank you for taking the time to read this.....keep our
children safe and consider the future of Huntington Beach and its residents.

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 03, 2019 7:37 AM
To: Ramos, Ricky
Subject: FW: Clean up Ascon --protect the residents

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Mark Dixon <ncsmt2014@gmail.com>
Sent: Friday, August 30, 2019 9:10 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Clean up Ascon --protect the residents

Dear Commissioners:

I am writing to urge you to reconsider the configuration of the Magnolia Tank Farm development.

There are so many reasons to hold off, including:

Ascon remediation has been suspended because at present it cannot be done without risk to the population;
Traffic congestion at the intersections of Magnolia/Hamilton, Banning/Magnolia and PCH/Magnolia is already heavy, with regular traffic accidents at those intersections;
Toxic drilling chemicals have migrated from the original storage areas and place the water table at risk;
Previous meager efforts to make the land habitable have failed and it is still a dangerous area, not ready for development.

I am asking you to:
Obtain and certify a current EIR for the Magnolia Tank Farm area;
Upgrade the zoning and enter into a land use covenant with the MTF;

Disallow any excavation or digging without a new assessment from a third party technical advisor that can coordinate the EIR findings and deem them acceptable.

Please - protect the public and manage this land effectively.

Respectfully,

Mark W. Dixon
21612 Bahama Lane
Huntington Beach CA 92646
714 394-0075

Ramos, Ricky

From: Oscar Uranga <oscarturanga@gmail.com>
Sent: Tuesday, September 17, 2019 9:44 AM
To: Ramos, Ricky
Subject: Magnolia Tank Farm

Mr. Ramos,

My name is Oscar Uranga and I live at 9881 Star Drive.

I am writing you because I **support** the development of the Magnolia Tank Farm site.

It is important that we, as a City, invite reinvestment into our community. I am a firm believer that we have over-regulated development to the point of a gross undersupply and a housing crisis. That said, we should hold all development to a high standard which honors our community. HB has obviously struggled to comply with Housing Element laws. The new RHNA numbers will be published early next year and I expect that all cities will struggle to comply. This is an opportunity to deliver market rate and affordable units which are needed. We should always remember to balance community goals, protection of environmental resources AND property rights (not easy, I know).

The community has made it clear that we do NOT support high-density development. To that end, I give credit to the applicant in proposing medium density housing. I would buy one.

I don't particularly care for the hotel as it drives the grades up for the accommodation of sub-t parking, etc but I also understand that Coastal Commission will want some visitor serving uses. There is precedence in the City for providing a park, maintained by the private HOA but open to the community. This is a better model. Otherwise, I suggest you consider a true sub-t garage that doesn't require massive amounts of import which is environmentally impactful (traffic, etc) and also creates a development that is out of character with its surroundings.

The site is challenging and should be designed with care and respect for its adjacencies including the wetlands and Ascon. If it is possible, I recommend a native trail along the flood control channel that ultimately connects with Edison Community Park and serves as a buffer between development and sensitive resources. Bolsa Chica is a great example of a well thought edge condition. This increases mobility and provides access to open spaces that are otherwise inaccessible. The City should assist in influencing other agencies to allow this to occur.

We should all continue to be concerned and show vigilance about Ascon to ensure that they clean up their mess so that the entire community is safe from harm. My two boys will attend Edison someday. Please push them to clean up their mess!

Thank you for your consideration in this matter.

Best,
Oscar Uranga
9881 Star Drive
Huntington Beach, CA 92646

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 17, 2019 10:42 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Robyn Sladek <robynsladek@gmail.com>
Sent: Tuesday, September 10, 2019 3:57 PM
To: Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Magnolia Tank Farm

Helloi, I'm a 48 year resident of HB. I grew up living near the Ascon Dump and I know how TOXIC that property is. The Tank Farm is NO DIFFERENT!

These properties are twin sisters, that have been separated by a chain link fence! Just because these sister properties are separated by the fence, doesn't mean that they have different DNA. These sister properties have the SAME SOIL and WATER….and it's HIGHLY CONTAMINATED! You cannot have one property that is Toxic as HELL, and the other be Safe for Human occupancy…
I think that the Tank Farm development would be done at the expense of our communitys HEALTH and SAFETY, just like ASCON!!

Mr. Shopoff is wanting to build residential housing and a small hotel on this property… KNOWING that it is ontop of HIGHLY TOXIC soil and water. He is acting with disregarding to human life by, ignoring previous reports that the land was unsuitable to build. The fact that he was charged with FRAUD should throw up a red flag! He is known for withholding information….makes me wonder about our city council too!
The history of this property goes way back.. I've found NUMEROUS reports that state the Tank Farm and ASCON can NEVER BE COMPLETELY CLEANED UP. In the preliminary WATER quality management plan for the Tank Farm dated Jan 23, 2018… it has a list with "Pollutants of Concern" on the list is:

suspended solids/sedements
Heavy metals
Pathogens
Pesticides
Oil and grease
Toxic organic compounds
Trash and debris
All of these were marked; "Expect to be of concern"

Just a few things found in the groundwater at the Tank Farm property that exceeded the DWS limits.;

Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Lead
Mercury
Nickel
Zinc… just to name a few…. again public record.

During the Preliminary Geotechnical investigation it states that groundwater water was encountered at 5-7 feet at the Tank Farm. The Tank Farm project discharges into the HB channel. The HB channel discharges into the Talbert channel which is downstream of the project which then goes into the Pacific Ocean at the Huntington State Beach.

How you can justify Mr. Shopoff BUILDING ON THIS LAND AS ACCEPTABLE?

IS THIS city IS SO desperate for revenue, that it will turn a blind eye to a DECADES long problem? This city is NEGLIGANT and violating of our civil rights!! We are not going away, were only gaining momentum.

The Tank Farm Property should NEVER BE REZONED OR ALLOWED TO BE BUILT ON…..PERIOD!
We don't need another ASCON Problem in our Community! ENOUGH IS ENOUGH!

Thank you,
Robyn Sladek

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 17, 2019 10:39 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm project

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Sandy Layman <soccersam3@verizon.net>
Sent: Tuesday, September 10, 2019 4:41 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm project

Dear Planning Commission:

I have written before, stating my objections to the development of the Magnolia Tank Farm Property for the mixed use purpose of a hotel, private residences and commercial ventures. My concerns about the degradation of air and noise quality, inappropriate and unsafe for residences especially, as well and the surrounding existing neighborhoods, from the adjacent Ascon Land Fill and AES, have only become heightened by the public safety failure we have experienced with the aborted attempt to clean up Ascon. I am even more alarmed by the discovery of Pit F, a styrene pit, and others, that were not even included in the plans for the Ascon cleanup. The Ascon plan had supposedly been approved for safety and proved to be woefully inadequate...to date they have been unable to remediate the land safely. The scary thing was that it took the residents raising an alarm, calling various agencies over and over and insisting that someone with authority take them seriously before ANYTHING of substance was done. And now we're embarking on a similar pot holed path with the property right next to it, that originally was together with Ascon as one plot of land that was dumped on, land that does not fit the Land Use of the neighborhood, that will significantly increase the traffic issues that already exist for Hamilton, Magnolia, Victoria and PCH. Do we really believe that Ascon's toxic chemicals have not migrated and leached into the Magnolia Tank Farm land that abuts it? And until it is seen whether the toxic land at Ascon can be remediated safely AT ALL seems completely irresponsible to move forward on ANY approval of MTF development. New assessments, by qualified objective third party companies that have no vested interest in the outcome seems crucial. An EIR with STRINGENT criteria, corroborated by someone who doesn't have skin in the game is the least our planning commission can require to keep not only existing HB citizens safe, but also any future residents should that land ever be built on. And addressing future concerns, sea level rise should also be part of the conversation, lawsuits against our city down the road from folks who believed that land was safe because YOU approved the building and then develop serious illnesses related to the toxic slurries abutting their property should be part of the conversation. Please DO NOT LET MONEY and short term gains be the driving forces in making these decisions. Please serve your citizens well...that's what we elected you to do and no less than every one of us deserves.

Sincerely,
Sandy Layman
21122 Poston Lane
Huntington Beach

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 17, 2019 11:09 AM
To: Ramos, Ricky
Subject: FW: Good to meet you - and concerns about groundwater flow during proposed Magnolia Tank Farm development
Attachments: MTFPiledriving100ftdamage.jpg; ASCONTPITOUTLINES.jpg; shoppoff .jpeg

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Sharon M. <marmiejoe@msn.com>
Sent: Thursday, September 12, 2019 2:40 PM
To: Raymond Hiemstra <raymondhiemstra@gmail.com>; ray@coastkeeper.org
Cc: Peterson, Erik <Erik.Peterson@surfcity-hb.org>; Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>; Grant.Cope@calepa.ca.gov; Grant Cope, DTSC <grant.cope@dtsc.ca.gov>
Subject: Good to meet you - and concerns about groundwater flow during proposed Magnolia Tank Farm development

Sharon M. has shared OneDrive files with you. To view them, click the links below.

Draft-EIR 2.pdf Ascon_Interim_GW_Report_Sept2018_CD.pdf

Draft-EIR--Appendix-G-1-Compilation-Report-of-Environmental-Investigations 3.pdf

Good afternoon Ray,
It was so nice meeting you at the R4RD event last weekend!

I am reaching out to you in concern for the proposed development of a 3-story lodge, medium density homes and retail space at Magnolia Tank Farm, which is adjacent to the Ascon Landfill, as well as adjacent to the wetlands and Huntington Beach channel. (Please see attached EIR clip, EIR and EIR Appendix G)

My team and I attended a recent study session with the HB Planning Commission on Tuesday night, 9/10 and some issues surfaced that I believe require your attention.

First of all, the proposed lodge will require extensive pile driving, as well as underground work to install the system framework for such a project.

Several concerns arise in relation to this as the pumping of very shallow groundwater, which generally flows to the north towards Ascon Landfill, will potentially and likely be reversed during construction and as piles are driven approximately 30 ft in depth. In addition, noise/vibration mitigation for the pile driving is now suggesting "alternative" methods that require pumping of the groundwater. This could reverse the flow of groundwater towards the wetlands, from Ascon Landfill, in a more permanent situation.

The change in overall underground status, by itself, risks changing the groundwater direction from north to south - bringing Ascon's toxic groundwater into the direction and area of the wetlands.

A similar issue is being faced in Playa Del Rey - where a large development project is planned adjacent to contaminated groundwater from a dry cleaners.
https://argonautnews.com/toxic-trouble-in-playa-del-rey/?fbclid=IwAR0O_nNmcp86wXceHVl4SlfeVX9AyaWrumKETO70TGSN4lKDoz-BOfqNp3A

As is extensively documented and agreed upon by Ascon Landfill, and the DTSC, the groundwater beneath this chemical dump is highly contaminated with a large variety of VOCs and heavy metals.
(Please see attached Interim GW report)

Secondly, the vibration caused by the pile driving is extensive and extremely dangerous to the toxic pits circled in red on the diagram uploaded. These toxic pits were those that received all of the styrene, industrial wastes and chemicals, known and unknown from 1938 until the early 1970s. These chemical pits will NOT be remediated under the current plan, with the exception of a partial removal of pit F. There is documentation that these pits may be as deep as 80 ft. These pits are unlined and we have no extensive deep ground investigation as to what recent earthquakes may have done to change their status. (Please see attached Ascon Pit Outlines)

As you can see, we are very concerned and vigorously lobbying the Planning Commission and City Council, as well as Assemblywoman Cottie Petrie Norris and Congressman Harley Rouda to protect our community, wetlands and waters from destruction should this ill-planned and unsuitable project of Shopoff Realty Investments move forward.

Currently, zoning restrictions for the Magnolia Tank Farm allow for only Public/Semi-public use. But this developer is demanding for change in zoning restrictions.

I also uploaded our current informational flyer, which I gave you last Saturday.

We would so appreciate any input or advocacy in protecting the people, wildlife and waters for Huntington Beach in this regard. And we are grateful for all the work you do!

Regards,
Sharon Messick
Huntington Beach Landfill Awareness Project
909.636.6277

TABLE 1-1
SUMMARY OF POTENTIAL IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE

Threshold of Significance	Project Impacts	Mitigation Program	Level of Significance After Mitigation
		MM NOI-4 **Final Acoustical Report.** Prior to issuance of building permits, the Project Applicant/Developer shall submit a Final Acoustical Report, prepared by a qualified acoustical consultant, to the City of Huntington Beach. The Building Official, or designee, shall verify that the Final Acoustical Report demonstrates that all exterior private living areas comply with the City's exterior noise level standard and that all residences with exterior façades, including all bedrooms and living rooms, comply with the City's interior noise standard. Noise reduction techniques that may be incorporated into construction plans in order to reduce interior noise levels include, but are not limited to, incorporation of upgraded windows and doors, improved wall construction, or reduced window and door sizes should oversized windows and door be originally designed. Additionally, the Final Acoustical Report shall assess all potential off-site noise impacts associated with on-site operations to insure compliance with the City's Noise Ordinance criteria for off-site sensitive land uses.	
hreshold 4.10-2 ould the project result in exposure of persons or generation of excessive groundborne bration or groundborne noise levels?	With typical construction activities, the closest adjacent uses would not be exposed to excessive groundborne vibration or groundborne noise levels, utilizing the FTA vibration standards. In the CV Zone, the proposed Project may require pile driving activities. The vibration levels at the closest off-site residence would be below the FTA threshold for potential damage to buildings; however, it would exceed the threshold associated with potential annoyance to the surrounding uses. MM NOI-3 (vibration control plan) would reduce construction vibration impacts to the greatest extent feasible. However, for the proposed Project, it cannot be stated with certainty that the vibration impacts would be reduced to less than the 72 VdB threshold associated with annoyance; therefore, this may be a significant unavoidable impact and no additional mitigation is available for the proposed Project. The proposed Project's operational impacts associated with excessive groundborne vibration or groundborne noise levels would be less than significant because none of the uses proposed would result in activities that would generate groundborne vibration or noise. Alternative 1 would only use typical construction practices and no pile driving is proposed. Impacts associated with exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels during construction and operational vibration would be less than significant.	**MM NOI-3** **Construction Vibration.** The results of the construction vibration analysis indicate that vibration damage could occur at structures within 100 feet of pile driving activities. Therefore, once final plans for pile driving have been completed, should any structures be located within 100 feet of the perimeter of pile driving, a vibration control plan shall be developed by the project applicant and approved by the City Community Development Department prior to issuance of building permits. The plan shall be implemented before, during, and after pile driving activity. The plan shall consider all potential vibration-inducing activities that would occur and require implementation of sufficient measures to prevent exposure of nearby sensitive receptors to vibration levels in excess of the Vibration Damage Criteria presented in Table 4.10-9. The plan shall identify minimum setback requirements for pile driving activities for the purpose of preventing damage to nearby structures and preventing negative human response. The setback requirements shall be established based on the proposed construction activities and locations and the maximum allowable vibration levels identified for the site. Factors to be considered include the specific nature of the vibration producing activity, local soil conditions, and the fragility/resiliency of the nearby structures. When the final schedule of pile driving activities has been determined, all sensitive receptors within 500 feet of pile driving activities shall be notified of dates in which these activities would take place. No additional mitigation is available (proposed Project). No mitigation is required (Alternative 1).	Significant and Unavoidable (proposed Project) Less Than Significant (Alternative 1)
hreshold 4.10-3 ould the project result in a substantial rmanent increase in ambient noise levels in e project vicinity above levels existing without e project?	In both the existing and buildout year scenarios, traffic-generated under the proposed Project and Alternative 1 would result in limited noise level increases along roadway segments in the project vicinity. The permanent increase in ambient noise levels in the project vicinity would be barely perceptible to the human ear and impacts would be less than significant for the proposed Project or Alternative 1.	No mitigation is required.	Less Than Significant

Hamilton Avenue
Magnolia Street
Lagoon 4
Lagoon 5
Lagoon 3
Lagoon 2
Lagoon 1
H
A
B
F
E
C
D
G

IS THE TIME!

9/10/19
6pm
(see addess below)

FACT: Magnolia Tank Farm, (21845 Magnolia Street) **WAS**:

- one property/one owner with Ascon land
- host to oil, gas production wells, refuse pit, HB Airport, storage tanks
- flooded and contaminated with toxic chemicals

FACT: Magnolia Tank Farm **IS**:

- separated only by a chainlink fence from Toxic Ascon Dump
- just feet from toxic chemical pits C, D, G, E, F which contain styrene, benzene and a host of known and unknown poisons as well as AES Power Plant
- continually flooded with toxic Ascon runoff and chemical vapors
- in need of more soil gas testing using a grid for the entire property
- known to share Ascon's most toxic, cancer-causing, dangerous chemicals, including Dibenz(a,h)anthracene and Benzo(a)pyrene
- located in flood, earthquake, liquefaction and methane-releasing zones
- currently zoned appropriately only for Public use. DO NOT REZONE!!!

FACT: Without YOUR VOICE, Magnolia Tank Farm **WILL BE:**

- adding significant air toxins to Edison High and Eader Elementary Schools
- a developer's dream to build medium-density houses and 3-story hotel
- requiring over 3000 steel/concrete poles (pilings) to be hammered 30 ft down
- causing vibrations and stress to the neighboring toxic landfill unlined pits
- placing health risks on current and future residents while placing our city government at risk for billion-dollar litigation in damages and loss of life.

①Show Up: **Bring your voice:** **TUES. 9/10/19 @ 6pm**
2000 Main St., HB (City Council Chambers)

②Speak Up: **Email HB Planning Commission and City Council**

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 17, 2019 11:17 AM
To: Ramos, Ricky
Subject: FW:

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Tara Waters <tarabarton1111@gmail.com>
Sent: Monday, September 16, 2019 5:28 PM
To: HBUHSD <marmiejoe@msn.com>; HBUHSD <Alexander.Gonzalez@mail.house.gov>; Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>; Perez, Claudia <Claudia.perez@asm.ca.gov>; Gregg Haulk <Ghaulk@hbcsd.us>; Cope, Grant@DTSC <Grant.Cope@dtsc.ca.gov>; fire.department@surfcity-hb.org; OHE@cdph.ca.gov; board@hbcsd.us; boardoftrustees@hbuhsd.edu
Subject:

Greetings,

We are reaching out to you in concern for the proposed development of a 3-story lodge, medium density homes, and retail space to be located at Magnolia Tank Farm (adjacent to the Ascon Superfund Landfill, Huntington Beach Wetland,s and Huntington Beach channel).
Our team attended a recent study session with the HB Planning Commission on 9/10/19 and some issues surfaced that I believe require your attention as public health and wellbeing continue to be threatened in this community. The ASCON remediation is currently halted due to DTSC enforcement of mandatory community protection from toxin exposure. The addition of the Magnolia Tank Farm (MTF) proposed project puts the community of SE Huntington Beach at increased risk for additional and accumulative physical, mental, emotional, psychological, and health risks.

Specific to MTF...Several major concerns have surfaced. Four zoning changes would need to be approved in order to accommodate the proposal. This land is not appropriate for the proposed development and the community is against the zoning changes. The soil, ground water, and air contain toxins from the lands prior uses and the adjacent Superfund landfill. Disturbing this property imposes major risks. For example, the proposed lodge will require extensive pile driving, as well as underground work to install the system framework.. Pumping of very shallow groundwater, which generally flows to the north towards Ascon Landfill, will potentially and likely be reversed during construction as piles are driven approximately 30 ft in depth. This puts the current surrounding residents, future MTF residents, and the HB Wetlands at risk for toxin intrusion from ASCON via groundwater. It is extensively documented and agreed upon by Ascon Landfill, and the DTSC, the groundwater beneath this chemical dump is highly contaminated with a large variety of VOCs and heavy metals. In addition, potential noise/vibration mitigation for the

pile driving is now suggesting "alternative" methods that require pumping of the groundwater. This could reverse the flow of groundwater towards the wetlands, from Ascon Landfill, in a more permanent situation. The vibrations in themselves may cause the clay/silt protective barrier to crack or break allowing additional seepage and movement of toxins from MTF and ASCON property to other surrounding areas. A similar issue is being faced in Playa Del Rey - where a large development project is planned adjacent to contaminated groundwater from a dry cleaners (https://argonautnews.com/toxic-trouble-in-playa-del-rey/?fbclid=IwAR0O_nNmcp86wXceHVl4SlfeVX9AyaWrumKETO70TGSN4lKDoz-BOfqNp3A).

Secondly, the vibration caused by the pile driving is extensive and extremely dangerous to the toxic pits located in the landfill. These toxic pits were those that received all of the styrene, industrial wastes and chemicals, known and unknown from 1938 until the early 1970s. These chemical pits will NOT be remediated under the current plan, with the exception of a partial removal of pit F. There is documentation that these pits may be as deep as 80 ft. These pits are unlined and we have no extensive deep ground investigation as to what recent earthquakes may have done to change their status. Lastly, MTF and ASCON are located next to Edison High School and Eader Elementary. Loud pile driving and exposure to dust and toxic plumes is not conducive to a safe learning environment.

Attached is the latest slide presentation that was presented to the Huntington Beach Planning Commission on 9/10/19. You will find the correlating speech in the note section of each slide and you may view the attached videos in "notes view" as well. The slides and speeches summarize just a few concerns of the community regarding this project and describes gaps in the project's Draft EIR. As you can see, we are very concerned and vigorously lobbying the Planning Commission and City Council, as well as Assemblywoman Cottie Petrie Norris and Congressman Harley Rouda to protect our community, wetlands and waters from destruction should this ill-planned and unsuitable project of Shopoff Realty Investments move forward.

We would so appreciate any input or advocacy in protecting the people, wildlife and waters for Huntington Beach in this regard.

Regards,

Tara B

PC-9_10_19-3.pptx

arton & Sharon Messick

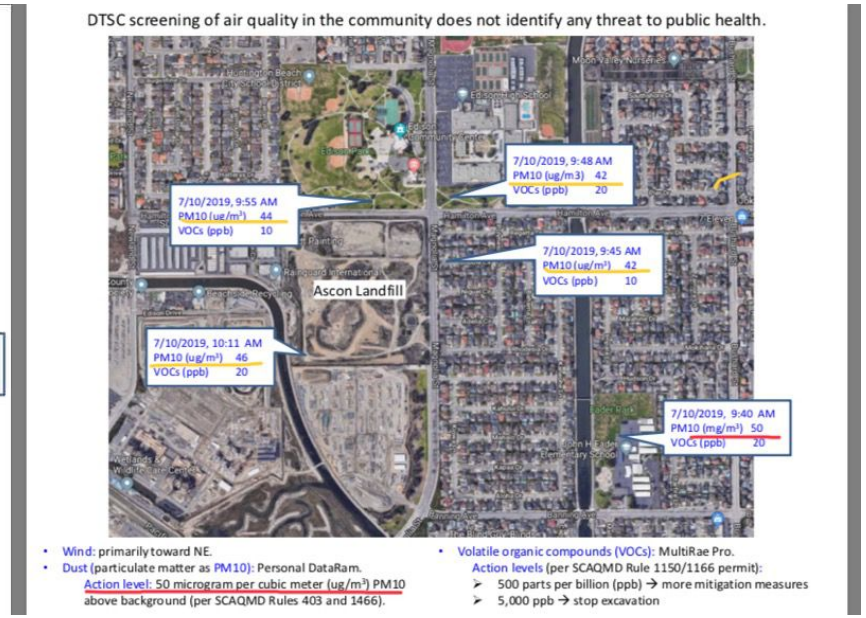
Huntington Beach Landfill Awareness Project

Planning Commission

Magnolia Tank Farm

September 10, 2019

Air Quality



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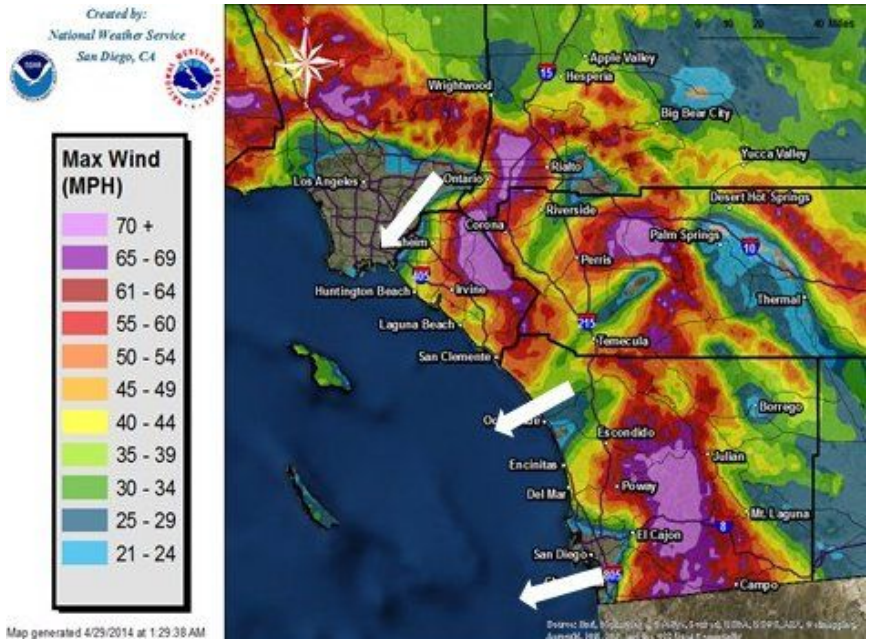
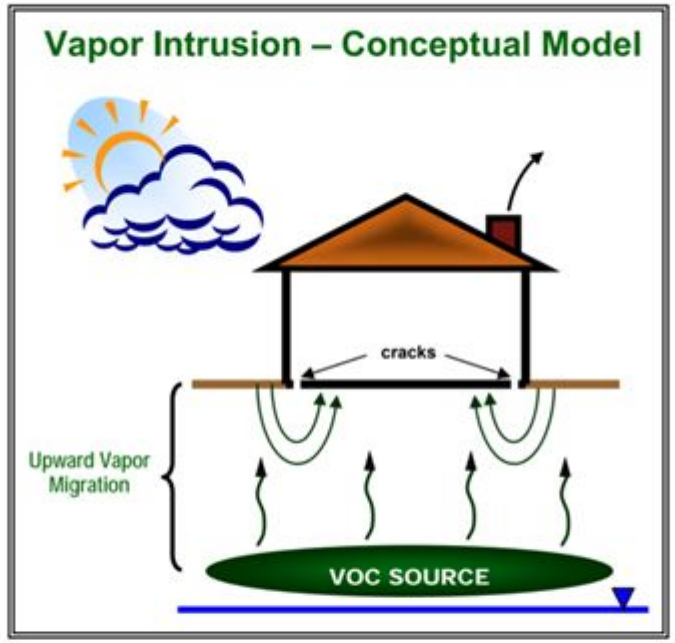


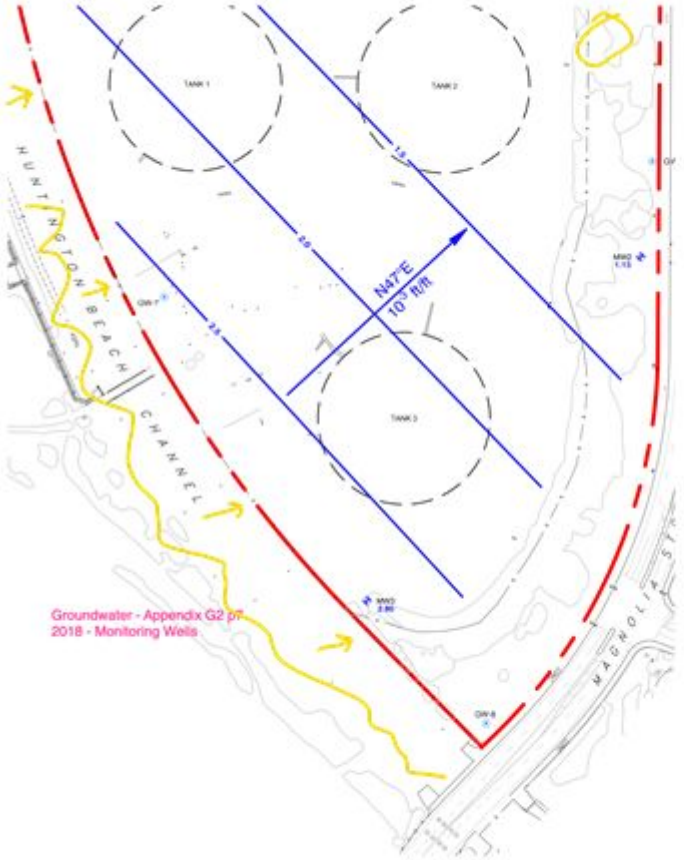
Ground Water

EIR IS UNACCEPTABLE



Inadequate Data
Missing Considerations
Errors in Calculations

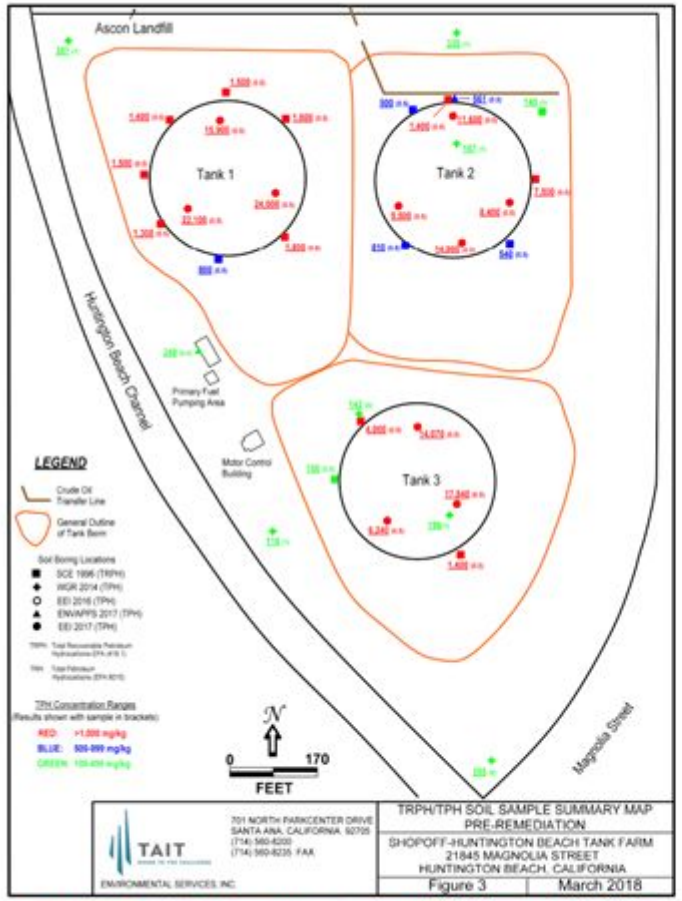
Ground Water



Groundwater Flow:
from HB channel
toward NE corner

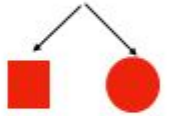
- Groundwater only 6 ft deep!
- Contamination from the channel?

Ground Water & Soil Gas



RED CIRCLES under tanks show high concentrations of TPH in soil -- but these areas were never tested for soil gas or groundwater contaminents!

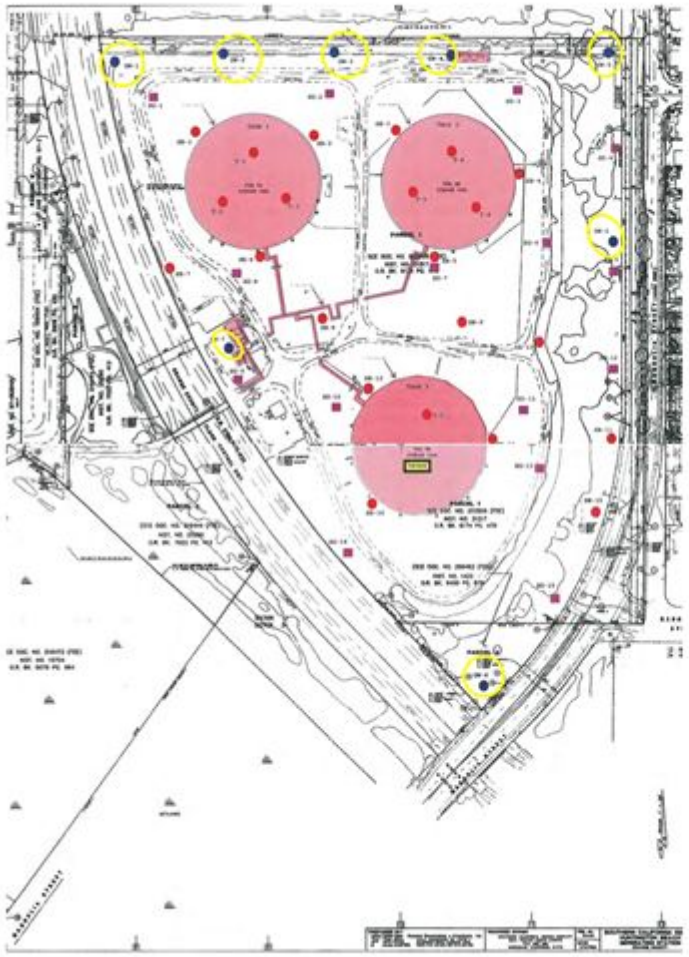
RED POINTS



is where soil samples were taken

- **Worst** Contamination (under the tanks)
- Where groundwater and the soil gas **WAS NOT TESTED**

Ground Water



Where the groundwater was sampled:
8 tests in 2013

tests: 1 per 4 acres

Sampled ONLY AT THE PERIPHERY!

Soil Gas

Where the
SOIL GAS
was sampled:
15 tests in 2013

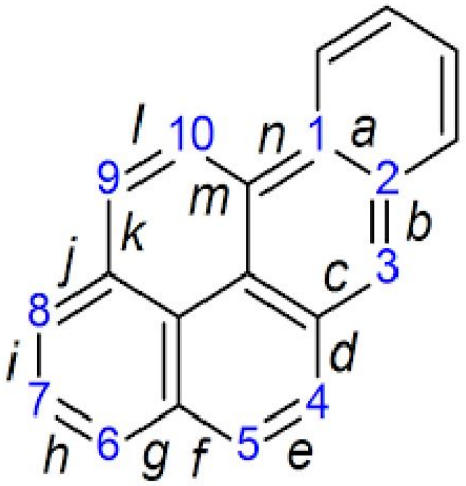
tests: 1 per 2 acre

- SAMPLED ONLY AT THE PERIPHERY
- NO SAMPLES TAKEN
  UNDER THE TANKS!
- ATTENUATION FACTOR ERROR
  (.001 vs .03)
- SAMPLES ONLY 3 ft. DEEP)

Soil Testing

Benzo(a)pyrene

Discovered in Magnolia Tank Farm soil at
ABOVE RESIDENT RISK BASED LEVELS!



Why Should We Care?

Cancer-causing

by ALL Routes of Exposure
inhalation, skin, ingestion, prenatal
even after exposure
of only 3 weeks!

head and neck ~ oral cavity ~ larynx ~ pharynx
esophageal ~ breast ~ lung ~ liver ~ pancreatic
stomach ~ bladder ~ kidney ~ colorectal
non-Hodgkin's lymphoma

Soil Testing

Birth Defects and Adverse Pregnancy Outcomes

- early miscarriage
- reduced birth weight
- reduced body weight and height for preschoolers
- reduced head circumference
- neurobehavioral effects
- decreased fertility
- skeletal malformations in the skull and vertebral column
- embryonic cytotoxicity and genotoxicity
- decreased motor area development
- fetus may be 10-fold more susceptible to DNA damage than the mother who is exposed
- Data supports preventive policies to limit Benzo(a)pyrene exposure to pregnant women and children
- Developing fetus is more susceptible than the mother to carcinogenic effects of Benzo(a)pyrene
- Male infertility

Childhood Developmental Toxin

- Decreases motor, language, social and overall average Developmental Quotient
- Depresses cognitive development

Mutagenic

- Chromosomal aberrations
- Single chromatid breaks
- Forms covalent adducts to DNA
- Mutations in the K-RAS oncogene
- Stem cell mutations
- Depressed mitotic rates in the retina and brain
- Bladder cancer risk associated with increasing chromosomal damage

Other Disease

- Alzheimer's Disease
- Chronic obstructive lung disease (COPD)
- Cerebrovascular disease
- Myocardial infarction (Heart attack)

Soil Testing

Where does Benzo(a)pyrene come from
and
How did it get in Magnolia Tank Farm?

- Smoke from forest fires
- **Industrial Processes - was it dumped into adjoining toxic pits C, D, G, or E and is leaching and will continue to leach as these pits are not going to be remediated?**
- Vehicle exhaust
- Cigarette Smoke
- **Burning of fuel (petroleum products) - did the historical use of oil burning at the AES plant, thus the need for tanks of oil fuel on the tank farm, contaminate the Magnolia Tank Farm soil?**

Site Vicinity and Features Map, Figure 1-2-3

- Aluminum production
- Chimney sweeping
- Coal gasification
- Coal-tar distillation
- Coke production
- Iron and steel founding
- Paving and roofing with coal tar pitch - was there paving, roofing or coal tar pitch dumped at Magnolia Tank Farm?

Soil Testing

Too Many Questions
Too Many Risks
Not Enough Due Diligence on the part of the Magnolia Tank Farm and this EIR to answer VITAL questions:

1. Where did this toxin come from?
-Because people cannot live on or near it.

2. How much toxins exist?
-Because no grid soil gas or soil tests have been performed.

3. Who will be responsible to thoroughly and HONESTLY examine, and mitigate this contaminated property?
-Because lives are at stake.

- **This EIR is incomplete and fraught with danger.**
- **This EIR suggests rezoning this contaminated land - called The Devil's Triangle by locals - and will endanger pregnant women, children and families**
- **This EIR suggests a project that will increase toxic air to existing children, schools and residents.**

Pile Driving

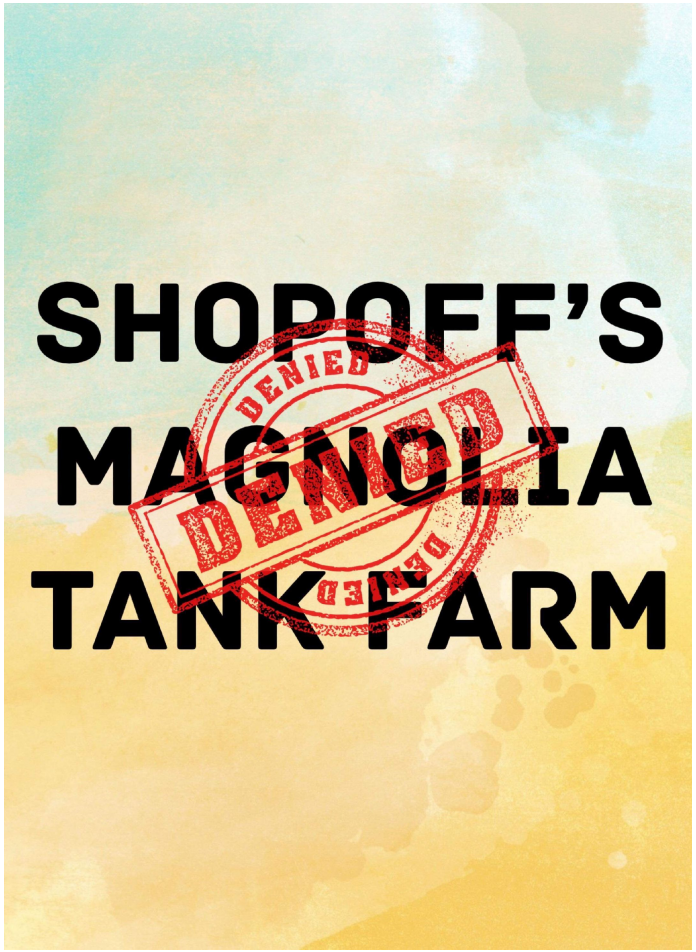
IMG_1082.MOV

- Loud Noise is a Nuisance to the Community
- Loud Noise Will Hinder Optimal Learning Environment
  - Eader Elementary is .58 miles from MTF
  - Edison High School is .44 miles from MTF
- Strong Vibrations May Impact Protective Clay/Silt Layer
  - Toxin migration
  - Ground water contamination

Data Gaps, Concerns & Considerations

- Land contamination
- Cross contamination of air, soil, and water from ASCON
- Asbestos and Lead contamination from tank removal
- Unconfirmed source of total Petroleum Hydrocarbons found above recommended limits in the soil at Tank Farm in 2013 and 2016
- Human and Ecological Risk Office concerns with the methodology and conclusions of the RFI Report
- TBA, metals, and TPH ground water contamination
- April 18, 2018 Compilation Report of Environmental Investigation
  - ASCON is one source of the ground water's contamination
  - DTSC has determined the ground water has beneficial use such as municipal, industrial, and agriculture. Why would known toxic ground water ever be used where exposure to humans and wildlife is a risk?
  - "the pipeline extending from the ASCON property may be an ongoing and continuing source of petroleum hydrocarbons impacting the soils at the Shopoff site."
  - "VOCs detected in soil gas exceeded EPA Resident Ambient Air RSLs."
- Sufficient air monitoring of MTF site and surrounding schools
- Eader Elementary PM10 readings above 50ug/m3 and when not located in the known wind pattern of ASCON but IS located in the MTF wind path
- Accumulative effects of AES, ASCON, and Tank Farm projects on the community
- Long term health effects be to the community from exposure to toxins from AES, ASCON, and the proposed Tank Farm Project

Conclusions



PLEASE DO NOT ACCEPT THIS EIR
To do so is immoral, inhumane and unethical.
Tell this developer that our city, our children, Huntington Beach, is not for sale.
Not here!
Not now!
This land is broken and bruised and is not fit for this money-making scheme.

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 03, 2019 7:32 AM
To: Ramos, Ricky
Subject: FW: response regading Magnolia tank farm project

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Trina Bilich <trinabilich@gmail.com>
Sent: Sunday, September 01, 2019 4:53 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: response regading Magnolia tank farm project

I would like to submit a ppt with notes for your review and in response to my concerns regarding the Magnolia Tank farm project. If you have any questions please do not hesitate to contact me at the email or cell # below. I wish nothing but to help provide facts and am concerned that some of the information being stated to the PC by the presenters is not accurate.

Although it may not be intentional it could have long term environmental and human health risk impacts. Rather than rush to make a decision please investigate these inaccuracies thoroughly.

I appreciated hearing the questions at the last session.

Thank you so much,

--
Tom and Trina Bilich

714-493-5320
trinabilich@gmail.com

responsetoPC

Tombilich@aol.com

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Magnolia Tank Farm

Response to EIR proposed rezoning of Public/Semi public usage

August 2019

Threshold 4.1-1 Would the project have a substantial adverse effect on a scenic vista?

Surrounding Area

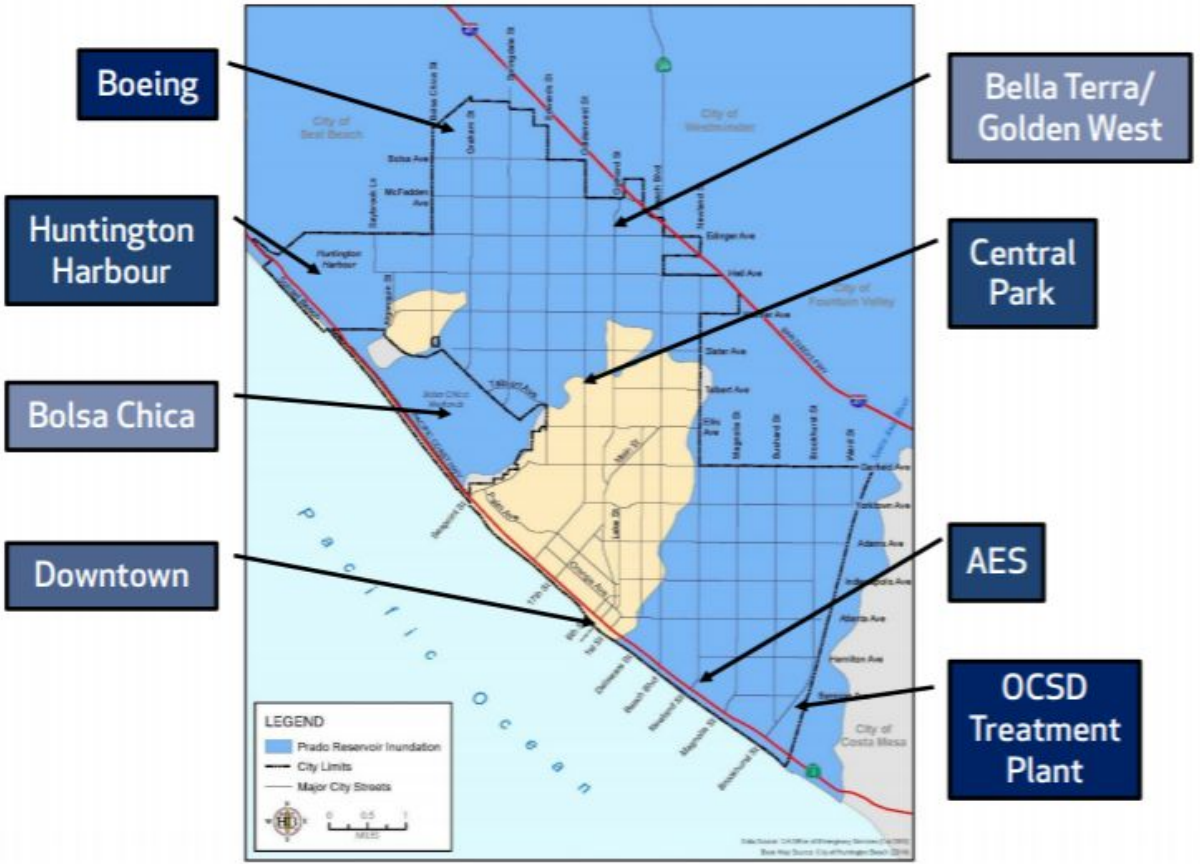
Surrounding adjacent land uses include AES, the Ascon Landfill which is under DTSC oversight and at a standstill while they determine how to treat STYRENE Pit F, the SCE electrical switchyard, to the south, the Orange County Flood Control District (OCFCD) flood channel to the east, the City of Huntington Beach's maintenance yard and Edison Avenue to the north, and an electrical switchyard and Newland Avenue to the west. Additional surrounding land uses include Pacific Coast Highway to the south, a wetland area to the southeast, commercial, industrial, recreational, and residential uses to the north, and undeveloped land, Huntington-By-The-Sea Mobile Home Park, and Cabrillo Mobile Home Park to the west. The Huntington Beach Wetlands are situated southeast and occupy a 135-acre, 1.5-mile-long area along the coast, bordered by Pacific Coast Highway to the southwest, and the Talbert and Santa Ana River Flood Control Channels to the north and southeast.1 The wetlands are divided into three major components, the Talbert, Brookhurst, and Magnolia marshes. To the southeast, the 17-acre Talbert Marsh opens to the ocean through a 100 foot-wide entrance adjacent to the mouth of the Santa Ana River. The Talbert wetland area was reintroduced to tidal influence on February 17, 1989. The second component of the Huntington Beach wetlands, the Brookhurst wetland area includes 70 acres located between Brookhurst Avenue.and Magnolia Avenue. This acreage has recently been opened to tidal flow and has been restored with wetland vegetation. The third component of the Huntington Beach wetlands, the Magnolia marsh area, includes 40 acres located between Magnolia Avenue and the Huntington Beach Generating Station property. This acreage is under restoration and is currently being opened to tidal flow.

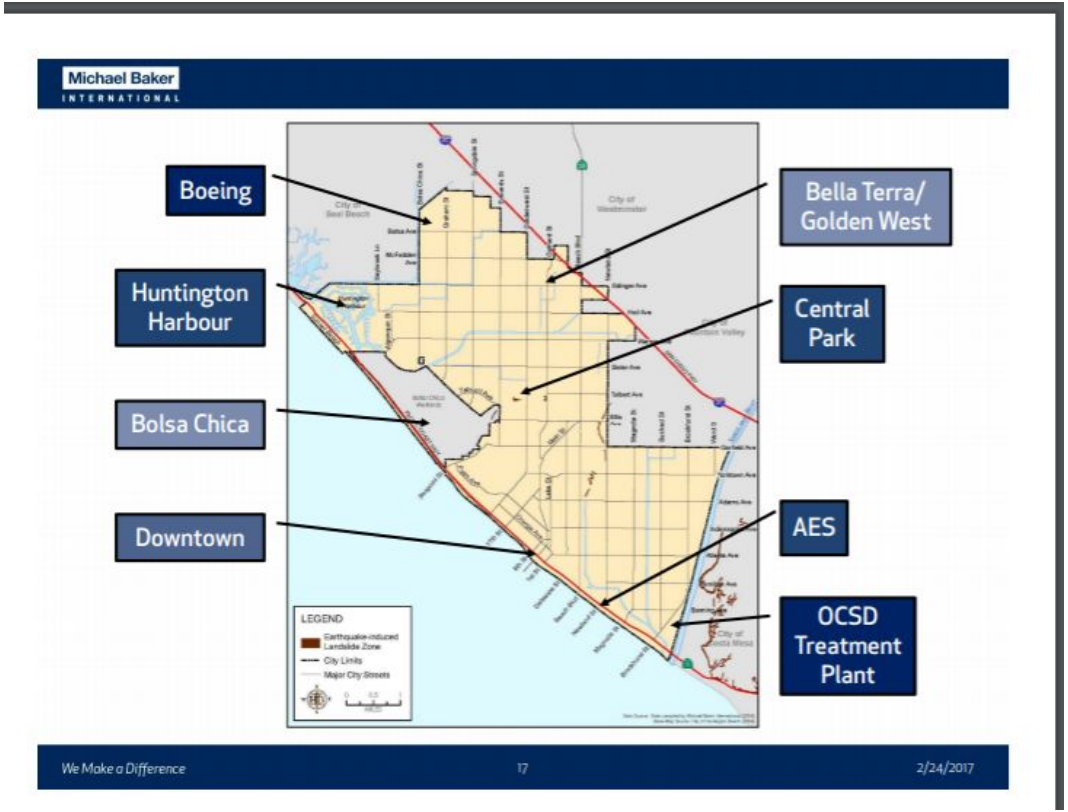
Threshold 4.1-2 Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Furthermore the City of Huntington Beach Local Hazard Mitigation Plan (LHMP) shows that this site is located in several hazardous zones and the recommended plan states that construction of buildings in this zone is NOT recommended due to past known events and future imminent HIGH threat risk to Human life and the Environment.

INTERNATIONAL

Huntington Beach Flood Zone Zine

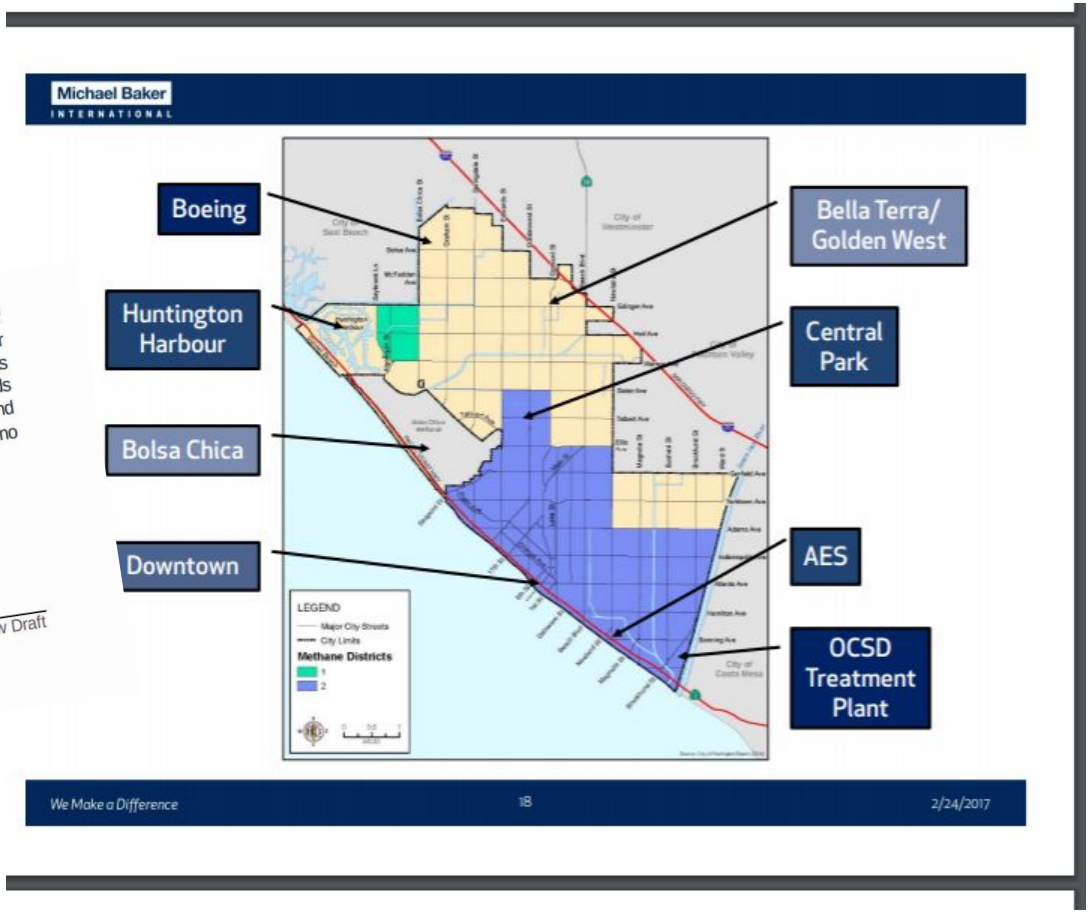




Earthquake Induced Landslide Zone

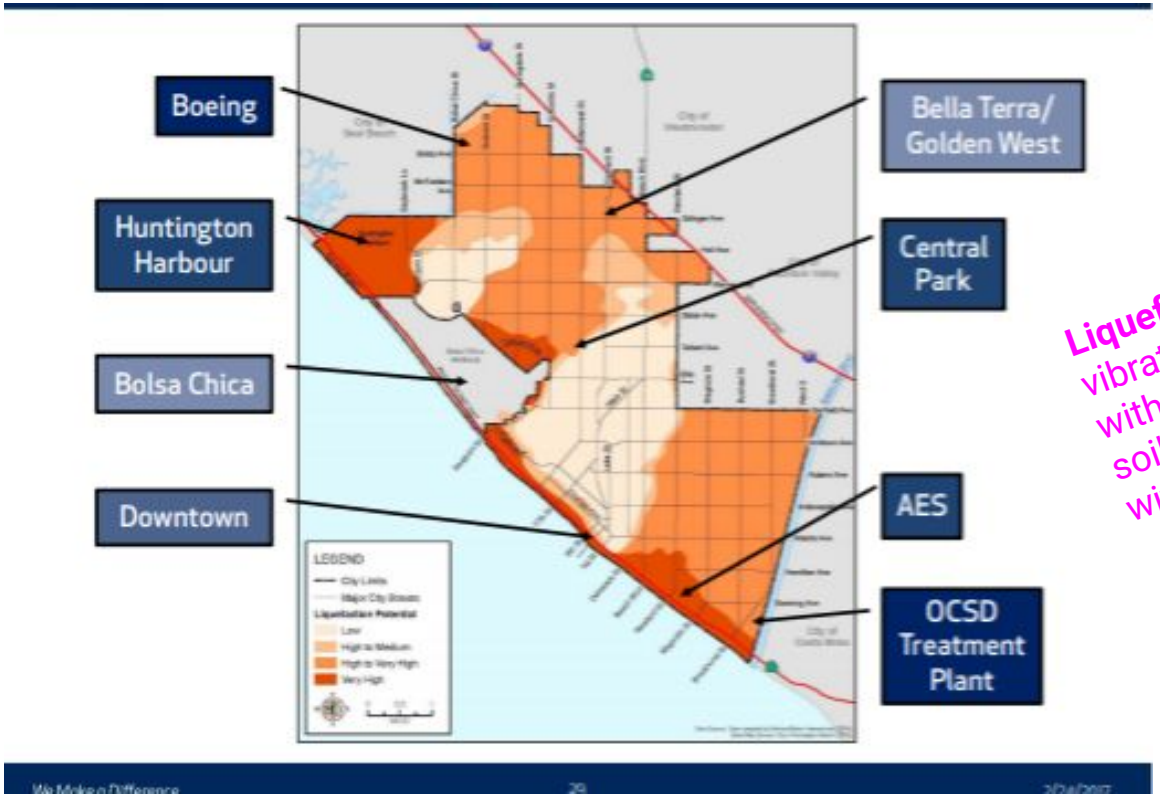
Methane Districts

Methane-containing soils: While the City requires methane risk reduction strategies in a wide area of the community, substantial events involving methane gas are rare. Elevated levels of methane have been reported at Edison Community Park, the Central Library, and Kettler Elementary School and in surrounding properties, although in all cases the methane was effectively vented and did not create any hazardous situations (Flores 2001a, 2001b; Edwards 2004). In 2004, an abandoned oil well spurted approximately 300 gallons of petroleum and methane gas, affecting 360 homes and causing property damage, although there were no reported injuries (Daniels 2004).



Tsunami Zone Huntington Beach

Liquefaction Potential



Liquefaction occurs when vibrations or water pressure within a mass of soil **cause** the soil particles to lose contact with one another

Sea Level Rise

Existing hazards to the proposed Magnolia Tank Farm Project include Federal Emergency Management Agency (FEMA 500-year fluvial flooding, tsunami hazards, and flooding resulting from a closed barrier beach.

In addition our city is at high risk for many critical facilities in these hazard zones, therefore according to recent Ocean Protection Council guidance (OPC), any critical community facility with a potential lifespan beyond 2050 requires evaluation by the high end H +++ sea level rise scenario (5 feet by 2070, 9 feet by 2100)

According to USGS CoSMoS modeling access to the site may be severely restricted by a 100 year coastal storm wave event with ~5 feet of sea level rise, which could be reached as early as 2070 under the H ++ scenario. The entire site under current topography was modeled to be exposed with 6.5 feet + of sea level rise and a 100 year riverflow event which could occur as early as 2070 (M&N, 2017)

At current topography closed beach barrier flooding, caused by natural closing of the ocean outlet on the flood control channel, could increase from an elevation of ~12 -15 feet NAVD under existing conditions to ~17-20 feet NAVD by 2070 under the H++ scenario and flood the proposed facility.

Figure 1

Please note that all elevations in this review are based on the North American Vertical Datum of 1988 (NAVD).

Sea Level Rise

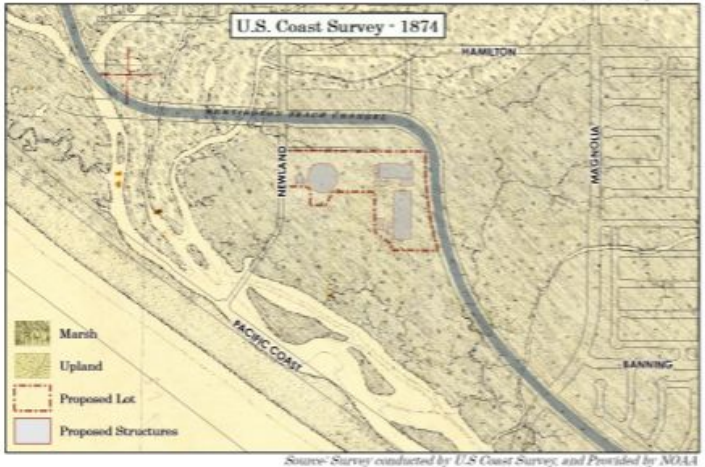
The sea level rise scenarios evaluated in this review include: RCP 2.6 (low emissions), RCP 8.5 (high emissions), and the H++ (worst case) scenario, which is recommended in the Ocean Protection Council Sea Level Rise Guidance (2018) for the evaluation of critical facilities such as the proposed facility (**Bold**). Probabilities of these sea level rise scenarios occurring by 2050, 2070, 2100 are shown in Table 1. The H++ scenario does not have any associated probabilities.

Table 1. Projected Sea Level Rise for Los Angeles

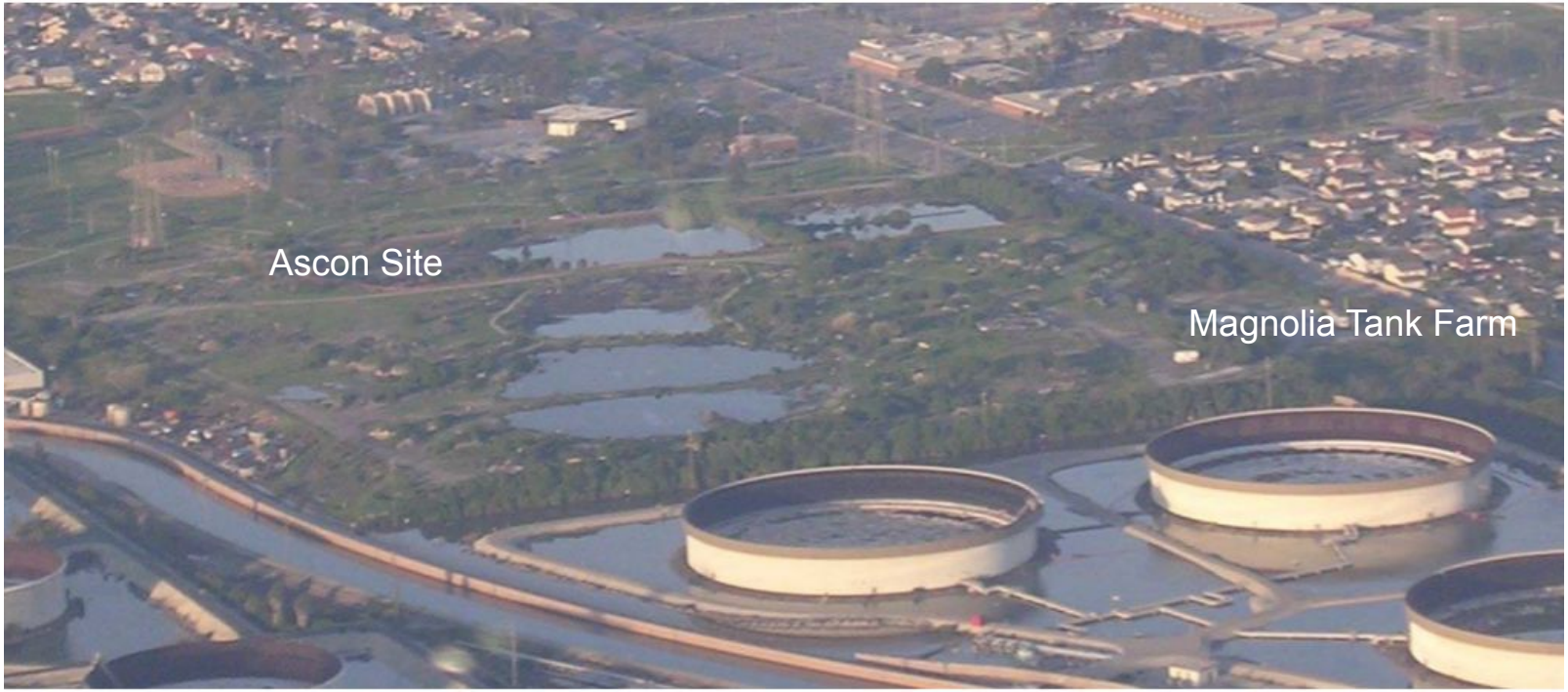
From OPC 2018 Guidance data	Projected Sea Level (in feet)				
Year	RCP 2.6 elevation (50% Probability)	RCP 2.6 elevation (0.5% Probability)	RCP 8.5 elevation (50% Probability)	RCP 8.5 elevation (0.5% Probability)	H++[1]
2050	-	-	0.7	1.8	**2.6**
2070	0.9	2.9	1.2	3.3	**5.0**
2100	1.3	5.4	2.2	6.7	**9.9**

Source: OPC Guidance, 2018

Source: Google Earth



Source: Survey conducted by U.S Coast Survey, and Provided by NOAA


Ascon Site
Magnolia Tank Farm

https://www.huntingtonbeachca.gov/announcements/attachments/Huntington_Beach_public_review_draft_LHMP.pdf

Critical Facilities

- Facilities that provide key services to City residents and businesses
  - Can be owned by the City, other government agencies, or private groups
- Existing LHMP has 50 critical facilities
  - City administrative offices
  - Libraries and recreational facilities
  - Water and wastewater facilities
  - Public Works and public safety buildings
  - Schools (selected)

A few more recent examples of why Magnolia Tank Farm and Ascon share contaminants...the following 3 videos are from an incident that took place on 08/28/2019 at Magnolia and Banning st.

The only safe precautionary measure is to vote 2B.

References

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https://consumerwatchdog.org/sites/default/files/2018-11/golden_wasteland.pdf

http://www.hbwetlands.org/pdfs/envsiteassmnt.pdf

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https://www.huntingtonbeachca.gov/government/departments/planning/major/files/Draft-EIR.pdf

http://www.prpblog.com/downloads/Ascon_Community_Mtg%20(7-6-05).pdf

https://www.nature.com/articles/s41598-017-01362-7

https://www.surfrider.org/blue-water-task-force/chapter/32

Ramos, Ricky

From: James, Jane
Sent: Tuesday, September 17, 2019 11:18 AM
To: Ramos, Ricky
Subject: FW: Shopoff Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Victoria Wilson <vwd777@gmail.com>
Sent: Monday, September 16, 2019 6:17 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Victoria Wilson <vwd777@gmail.com>
Subject: Shopoff Tank Farm

Planning Commission Members;

I am writing as a concerned citizen of Huntington Beach, a parent of two children raised as well as a volunteer in the community, most especially at Edison High School. We moved here to Huntington Beach 31 years ago and have almost always lived in the area bordering Atlanta, Newland, Magnolia and PCH; generally all around the Edison/AES Plant and the NESI site.

This site CANNOT be rezoned to accommodate the Shopoff Plan. This is a misuse of land for both the current citizens of Huntington Beach as well as to future people who would be sold homes or have vacations on toxic land. It is also unethical, on the basis of greed and money, to rezone an area that was rezoned not long ago and slated to be open land, undisturbed and not to be developed AND ONLY FOR PUBLIC USE.

The idea that someone can come in and buy the members of the city council as well as the Planning Commission to violate citizens good for pure and utter greed is contemptuous.

You cannot zone an area because it is polluted and unlivable and then rezone to decide it is.

As a long time citizen of Huntington Beach, the only solution for the tank farm and the Nesi/Ascon site is a resounding NO. No building, no homes, no hotel, PERIOD. To make a downtown area in the midst of a quiet residential neighborhood is nothing short of wrong. To bring more bars and restaurants into an area that is already flooded with drinking establishments too close to our homes as it is, is reprehensible. The traffic, the parking issues, the noise and dust of trucks for those of us who bought property here to be near an area of undeveloped and to NEVER be developed land is why we live in this area. Parking alone will be a nightmare in our neighborhoods because it will flow there- there is not enough allowable land for parking in the plan. Who is going to have one car per family? That is not the way Southern California moves. NOT TO MENTION, THE DIRT ON THAT PROPERTY SHOULD NOT BE MOVED, DUG OR TRANSPORTED DUE TO TOXINS IN THE SOIL WHICH HAVE BEEN PROVEN OVER AND OVER AGAIN, which is why it was zoned as such. You cannot keep allowing money, power and greed to overcome what is right in and for the citizens of our city. I know of NO ONE that wants this or believes it is the right thing to do.

Please say NO to this plan and to any plan which seeks to toxify people by placing them on a toxic waste dump and say NO to development of this area. Leave it undisturbed. KEEP OUR NEIGHBORHOODS QUIET NEIGHBORHOODS. THE RESIDENTS HAVE SPOKEN. SAY NO TO GREED AND INAUTHENTIC CLAIMS. SAY NO TO SHOPOFF PLANS.
Keep our children safe as you would want yours safe. NO DEVELOPMENT AT THE MAGNOLIA TANK FARM.

Thank you.

Victoria Wilson
31 year resident of Huntington Beach
vwd777@gmail.com

ORANGE COUNTY
BUSINESS COUNCIL 2 Park Plaza, Suite 100 | Irvine, CA 92614| P 949.476.2242 | F 949.476.0443 | www.ocbc.org

September 17, 2019

RECEIVED
SEP 27 2019
Dept. of Community Development

Planning Commission Chair Pat Garcia
Members of the Planning Commission
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

RE: Shopoff Realty Investment's Proposal for the Magnolia Tank Farm Development – SUPPORT

Dear Chairperson Garcia,

Orange County Business Council (OCBC) is a regional leader in business and serves as an influential advocate for Orange County's economic prosperity. One of OCBC's core initiatives is to advocate for the development of new housing to meet current and future needs of Orange County's diverse workforce. **For this reason, OCBC supports Shopoff Realty Investments' proposal for the Magnolia Tank Farm Development.**

The City of Huntington Beach is in desperate need of a variety of housing types, especially for residents who work in the city and want a move-up opportunity or would like to downsize. Employees of local businesses living outside of Huntington Beach would also greatly benefit from new housing opportunities. The addition of a lodge with amenities for the local community, as well as educational opportunities for those wanting to learn more about the wetlands is a much-anticipated upgrade to the southeastern portion of the City. Redevelopment of this land is not only necessary for the property, but also for the surrounding community.

OCBC looks forward to progress being made to advance this project through the Planning Commission process and ultimately to the City Council for approval, and respectfully requests that The Planning Commission and City Council consider the invaluable benefits this development would provide to city residents.

Sincerely,

Alicia Berhow
Senior Vice President of Government Affairs

cc: Ricky Ramos, Senior Planner, City of Huntington Beach

Ramos, Ricky

From: Brian Zitt <BZitt@ecorpconsulting.com>
Sent: Tuesday, October 08, 2019 1:02 PM
To: Ramos, Ricky
Subject: Magnolia Tank Farm Project

Good afternoon Mr. Ramos,

You are listed as the Project Planner for the Magnolia Tank Farm Project. I am a longtime resident and I am writing to extend my support for this Project. I am also a biologist, and am familiar with the environmental review process. Having read through the draft EIR and attended some of the community advisory meetings. I've been impressed by the Shopoff team's commitment to environmental stewardship and our community. They have put together an experienced team that has partnered with our residents and the HB Wetlands Conservancy to gather input and share ideas to create something special. As a nearby resident, an avid beach goer, environmentalist/biologist, and father with elementary age children in the HBCSD, I would love to see the land being used in a way that provides multiple benefits for our residents and guests. The site has been an eye sore for far too long and I'm excited to have this proposed project happening in our city.

Thank you for your time,

Brian Zitt
Senior Aquatic Biologist/Diving Safety Officer
ECORP Consulting, Inc.
30 YEARS ECORP Consulting, Inc. ENVIRONMENTAL CONSULTANTS
A Federal Small Business
California Small Business for Public Works (SB-PW)

NEW ADDRESS, EFFECTIVE 9-1-19: 2861 Pullman Street, Santa Ana, CA 92705
Ph: 714.648.0630 ext 1411 ◆ Cell: 714.496.5540
bzitt@ecorpconsulting.com ◆ www.ecorpconsulting.com
Rocklin ◆ Redlands ◆ Santa Ana ◆ San Diego ◆ Chico ◆ Flagstaff, AZ ◆ Santa Fe, NM

Ramos, Ricky

From: Doug Cummins <doug.cummins@dahlingroup.com>
Sent: Wednesday, October 09, 2019 3:47 PM
To: Ramos, Ricky
Subject: Tank Farm Support

Dear Mayor Peterson:

I support the plans as proposed for the Magnolia Tank Farm. As a resident, I believe redevelopment such as this is vital to our local economy. There is a great need for additional housing opportunities in the city as well as the state of California. This area of Huntington Beach is also in need of local amenities for the community; the proposed Lodge will bring with it meeting space, outdoor activity and retail to the area.

Please approve this project.

Sincerely,

Douglas Cummins

8482 Hillhead Drive
Huntington Beach CA 92646

Ramos, Ricky

From: Hersel Zahab <Hzahab@ldc-ce.com>
Sent: Tuesday, October 15, 2019 2:23 PM
To: Ramos, Ricky
Subject: Magnolia Tank Farm

Dear Mayor Peterson:

I support the plans as proposed for the Magnolia Tank Farm. As a long time resident of Orange County, I believe redevelopment such as this is vital to our local economy. There is a great need for additional housing opportunities in the city as well as the state of California. This area of Huntington Beach is also in need of local amenities for the community; the proposed Lodge will bring with it meeting space, outdoor activity and retail to the area.

Please approve this project.

Sincerely,

Hersel M. Zahab, P.E.
Principal
(714) 557-7700 ext. 6

Land Development Consultants
forward thinking, forward planning

1520 Brookhollow Dr., Ste 33, Santa Ana, CA 92705
www.ldccivilengineers.com

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Ramos, Ricky

From: John Toohey <jhtoohey@outlook.com>
Sent: Thursday, October 10, 2019 10:19 AM
To: Ramos, Ricky
Subject: Magnolia Tank Farm

Dear Mayor Peterson:

I support the plans as proposed for the Magnolia Tank Farm. As a resident, I believe redevelopment such as this is vital to our local economy. There is a great need for additional housing opportunities in the city as well as the state of California. This area of Huntington Beach is also in need of local amenities for the community. The proposed Lodge will bring with it meeting space, outdoor activity and retail to the area.

Please approve this project.

Sincerely,

John Toohey
(949) 439-9134

Ramos, Ricky

From: Kelly Thompson <ktdzns@aol.com>
Sent: Thursday, October 10, 2019 4:14 PM
To: Ramos, Ricky
Subject: Re: Magnolia Tank Farm EIR Response to Comments

This will be a toxic nightmare and gross negligence on our city. This developer is a crook and fraudster. This area and Ascon are a toxic nightmare cozied up to our wetlands, beach and established community.

Sent from my iPhone

September 23, 2109

The Honorable Erik Peterson
and Councilmembers
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

RE: SUPPORT FOR SHOPOFF REALTY PLANS FOR TANK FARM

Dear Mayor Peterson:

I would like to express my support for Shopoff Realty Investments' proposal for homes and a lodge on the Tank Farm property in Huntington Beach. As a member of the building industry, I am an advocate for responsible development, thoughtful planning and development projects that shed a positive light on our industry.

Shopoff is proposing a project that not only complements and provides suitable transitions to the existing surrounding land uses, but also improves the area by removing a blighted property and replacing it with uses that bring much-needed funds to the city as well as desperately needed housing options to the area. In this case, the plan places compatible housing next to existing residential. The lodge is placed near existing industrial uses and overlooking the wetlands separated with a large buffer to protect this resource while also promoting its educational value to residents and guests alike.

As the housing crisis in southern California continues, we are desperate for new housing—move-up opportunities for grown children moving back to their "hometown," expanding families needing a larger floor plan, and empty-nesters downsizing.

From an economic perspective, revitalization of the Tank Farm can only increase neighboring property values and provide a much-needed boost to Southeast Huntington Beach. And, of course, taxes generated will undoubtedly benefit the city's infrastructure, public safety and other city-funded needs.

In my opinion, this project will only provide positive changes to the area. I hope that you agree and vote YES when it is brought before you for approval.

Sincerely,

Name: LES CARD

Address: 1733 La Colina Dr. Santa Ana 92705

Signature: Les Card

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 15, 2019 8:58 AM
To: Ramos, Ricky
Subject: FW: No Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: robin@blueprintsvmg.com <robin@blueprintsvmg.com>
Sent: Monday, October 14, 2019 5:49 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: No Tank Farm

Hello,

Please, I implore you, do not approve the Tank Farm/Shopoff project.

1. It is simply not safe
2. Mr. Shopoff is a criminal and ethically challenged.
3. Do you really want to stake your name on this proposed project?

I live on Adelia Circle (across the street from the big tent) and have endured too many 'projects' in SE HB. This is not good for our community and detrimental to everyone's health.
Thank you.

Robin Brogdon, MA
BluePrints Veterinary Marketing Group, Inc.
O: 949.756.8071 C: 714.313.0621
robin@blueprintsvmg.com | blueprintsvmg.com

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
301 East Ocean Blvd., Suite 300
Long Beach, CA 90802
(562) 590-5071

September 5, 2019

Ricky Ramos
Senior Planner
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

RECEIVED
SEP 10 2019
Dept. of Community Development

Re: Draft Magnolia Tank Farm Specific Plan
Preliminary Comments

Dear Mr. Ramos:

Thank you for the opportunity to comment on the January 2019 draft version of the *Magnolia Tank Farm Specific Plan, Specific Plan Number 18*. The comments herein are focused on Appendix B which provides a summary of the project sea level rise vulnerability assessment and adaptation plan. Although we have met with City staff and the project proponent (Shopoff Realty Investments) in the past, discussions were primarily focused on the overnight accommodations contemplated as part of the project. However, we have consistently indicated that impacts at the site due to expected future sea level rise will be an important factor during consideration of the specific plan. Upon review of Appendix B of the draft Specific Plan, we have very strong concerns with the land use and zone change and related development reflected in the Specific Plan. These changes appear to be inconsistent with Chapter 3 policies of the Coastal Act and with the policies of the certified Local Coastal Program (LCP) Land Use Plan (Coastal Element) (LUP).

The subject site is a 29 acre site located west of Magnolia Street, and immediately inland of the Magnolia Marsh section of the Huntington Beach wetlands complex. The specific plan is intended to address future redevelopment of the site. Currently the subject site is land use designated Public (P) and zoned Public-Semipublic-oil overlay (PS-o). As currently drafted the specific plan anticipates designating 2.8 acres of the site Coastal Conservation, 2.9 acres of the site Open Space Parks & Recreation, 18.9 acres to medium density residential (RM) which would allow up to 250 residential units, and 4.3 acres Commercial Visitor Commercial (CV). As recognized, the contemplated development would require approval of a Local Coastal Program amendment by the Coastal Commission, affecting both the Land Use Plan and the Implementation Plan portions of the LCP. The subject site is located between the sea (tidally influenced Magnolia Marsh) and the first public road (Magnolia Street). Based on this location, the site is within the appeals jurisdiction of the Coastal Commission.

The standard of review for a land use designation change at the site is the Chapter 3 policies of the Coastal Act. The Specific Plan will rely upon approval of a change in the land use designation at the subject site. The standard of review for the zone change and draft specific plan is the City's certified Land Use Plan (Coastal Element). The Coastal Act includes the following policies:

Section 30236:

> Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the

flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section 30253(a) and (b):

New development shall do all of the following:
(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The City's certified Local Coastal Program Land Use Plan (Coastal Element) contains the following policies:

Policy C 1.1.9

Minimize risks to life and property in areas of high geologic, flood and fire hazard through siting and design to avoid the hazard.

New development shall be designed to assure stability and structural integrity, and neither create no contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in anyway require the construction of a protective device.

Policy 6.1.27

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Based upon information contained in Appendix B and review of the USGS CoSMoS modeling tool[1], it appears the site will be subject to significant impacts from sea level rise during the anticipated life of the proposed development, including flooding of the surrounding area causing potential loss of access roads, as well as eventual flooding of the site itself. The Coastal Act sections and LCP policies sited above require that new development (such as that reflected in the draft specific plan) minimize risks, assure stability and structural integrity, and neither create nor contribute to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices. The Coastal Act sections and LCP policies sited above also require that alterations to rivers and streams be limited to flood control projects where no other method for protecting ***existing*** structures is feasible. It is important to note that the subject site is currently vacant, and thus, there are no existing structures present.

The adaptation measures summarized in Appendix B appear to rely almost entirely upon potential future management efforts that would be limited by the above mentioned policies and that further rely on the assumption that these management efforts will be defined and implemented by a

[1] http://data.pointblue.org/apps/ocof/cms/index.php?page=flood-map

government agency or agencies (City, County, or US Army Corps of Engineers). However, planning, funding and implementation of these future measures is uncertain at this time. Based upon these concerns, it does not appear that the subject site is appropriate for a significant new development at this time, particularly considering the contemplated development includes up to 250 residential units, which are of very low adaptability to future sea level rise impacts. Further, it does not appear that the change in land use designation and re-zone of the site, and related development described in the draft Specific Plan could be found to be consistent with the referenced Coastal Act sections and LCP policies cited above. There may be other areas of inconsistency as well.

Coastal Commission staff is available to meet with City staff and with the project proponent to discuss these comments and the development reflected in the draft Specific Plan. Unfortunately, due to staff schedules, we cannot meet in person until the beginning of October. However, in the interim, Madeline Cavalieri, Statewide Planning Manager, in our Santa Cruz office may be contacted to discuss the general concerns described in this letter. Ms. Cavalieri may be reached at (831) 427-4890, or madeline.cavalieri@coastal.ca.gov. After October 1, 2019, please feel free to contact me to discuss this matter and/or to arrange a meeting date. We appreciate the request for comments early in the process and prior to local action on the matter and we look forward to working together on this item in the future.

Sincerely,

Meg Vaughn
Staff Analyst

cc: Jennifer Villasenor, Planning Manager
Greg Vail, Shopoff Realty Investments

100 Oceangate, 12th Floor
Long Beach, California 90802
949.334.9612

ANCHOR QEA

October 16, 2019

Meg Vaughn
Staff Analyst
California Coastal Commission
South Coast Area Office
301 East Ocean Boulevard, Suite 300
Long Beach, California 90802

Re: Draft Magnolia Tank Farm Specific Plan: Preliminary Comments

Dear Ms. Vaughn,

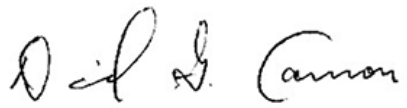
We are writing in response to your letter dated September 5, 2019, regarding the Magnolia Tank Farm (MTF) Specific Plan Draft Environmental Impact Report (DEIR). We believe there is some confusion regarding interpretation of the material related to sea level rise (SLR) in the DEIR, which was used to inform much of the content in that letter. Consequently, we have provided the following information intended to clarify the material in the DEIR related to SLR.

On page 2 of your letter, you indicate that it appears the project site will be subject to significant impacts from SLR during the anticipated life of the proposed development, including flooding of the surrounding area causing a potential loss of the access road as well as eventual flooding of the site itself. The text in your letter implies that this conclusion was based on information contained in Appendix B and review of the USGS CoSMoS modeling tool. In Appendix H-3 of the DEIR there is a project-specific SLR vulnerability assessment and adaptation plan (VAAP) that was prepared on behalf of the project applicant (Shopoff Realty Investments [SRI]) by Anchor QEA, LLC. The CoSMoS results readily available online (e.g., Our Coast, Our Future) were accessed and reviewed to prepare the VAAP. This evaluation showed that the CoSMoS configuration used to represent the project site vicinity did not accurately represent project conditions. Specifically, the CoSMoS configuration did not include the presence of the vertical floodwall that runs along the western boundary of the project site against the Huntington Beach Channel. That floodwall, which is owned, operated, and maintained by the Orange County Flood Control District, is higher than the surrounding ground elevations used in the CoSMoS configuration. Thus, the CoSMoS configuration overpredicts the extent of flooding. The omission of the floodwall from the CoSMoS configuration was verified by staff at the U.S. Geological Survey, which is the agency that developed and ran the CoSMoS modeling system. Please see Appendix H-3 for more detailed information.

In Appendix H-3 you will also find additional information that should help inform your review of the project with regards to SLR. For example, a site-specific model was developed to analyze fluvial (river) flooding in the vicinity of the project site under both current (2025 without SLR) and future timeframes (2050 and 2100 with SLR). This model was used to analyze both existing and proposed conditions (i.e., with the project) to assess coastal hazards now and in the future. The modeling results showed that the project would reduce coastal hazards at the project site associated with fluvial flooding in the future with SLR.

We would like to take you up on your offer to convene a meeting to review your comments. We believe that an in-person meeting will provide an opportunity for us to present and explain the information contained in Appendix H-3. I will contact you within the next 2 weeks to schedule a meeting with representatives from the City of Huntington Beach, SRI, and relevant members of the consulting team working for SRI. We look forward to meeting with you.

Sincerely,



David G. Cannon, MCE, PE
Principal Engineer

cc: James O'Malley, Shopoff Realty Investments
Ricky Ramos, City of Huntington Beach
Jennifer Villasenor, City of Huntington Beach

MAGNOLIA
TANK FARM

COASTAL HAZARDS & SEA LEVEL RISE FACT SHEET

August 2019

Coastal Hazards and Sea Level Rise Addressed by:

- o Using best available sea level rise science (OPC 2017);
- o Following applicable sea level rise policy (CNRA & OPC 2018), and;
- o Applying relevant sea level rise policy guidance (CCC 2015).

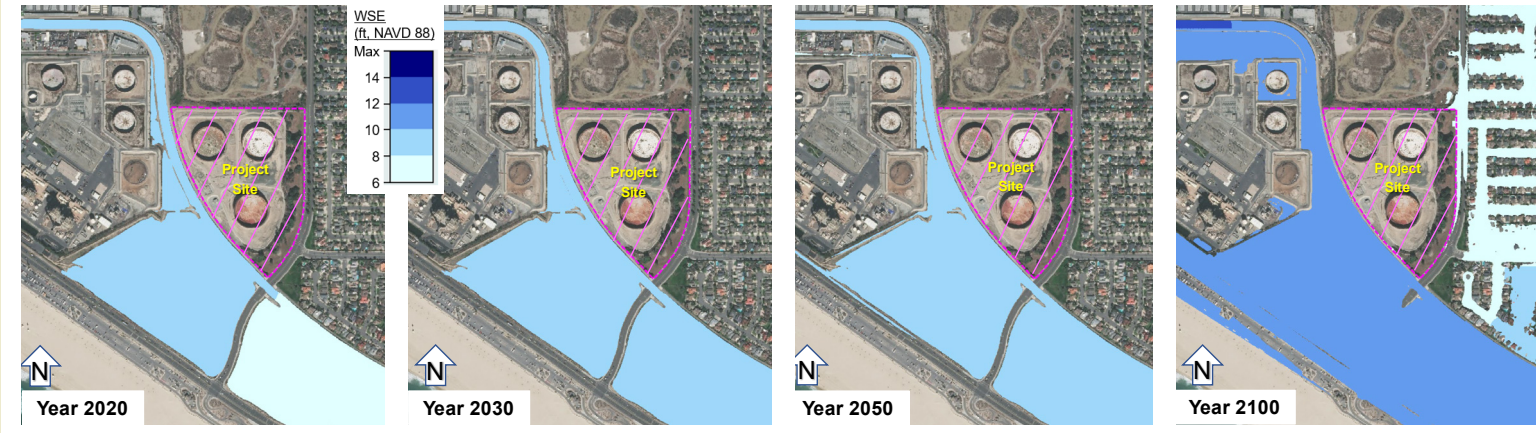
- Project site not vulnerable to coastal erosion between Year 2020 and Year 2100 due to distance from the ocean
- Project site not vulnerable to tidal inundation between Year 2020 and Year 2100
- Project site not vulnerable to coastal wave storms between Year 2020 and Year 2060
- Project site not vulnerable to fluvial floods between Year 2020 and Year 2060
- Project site vulnerable to fluvial floods in Year 2100; however, the level of vulnerability is less with the project
- Sea level rise adaptation plan developed to address future vulnerabilities related to coastal wave storms and fluvial floods

Sea Level Rise Adaptation Plan Consists of:

- o Increasing ground elevations and raising building pads to protect structures
- o Allocating space for future sea level rise adaptation measures done as:
  - Local project by property owners or City
  - Regional project by Orange County or U.S. Army Corps of Engineers
- o Phased implementation over time designed to avoid impacts to existing, surrounding land associated with implementation of the adaptation plan components

Proposed Condition (With Project)

100-Year Flood Maximum Water Surface Elevations Under Current Timeframe
(Year 2020 Without SLR) and Future Timeframes (Years 2030, 2050, and 2100 With SLR)



Magnolia Tank Farm Redevelopment Project
Sea Level Rise Vulnerability Assessment and Adaptation Plan

Coastal Hazards Vulnerability Assessment Summary

Time Period	Coastal Erosion	Tidal Inundation	Coastal Wave Storm	Fluvial Flooding	Tsunami
Existing Conditions (Year 2020)	No	No	No	No	Yes
By Year 2030	No	No	No	No	Yes
By Year 2060	No	No	No	No	Yes
By Year 2100	No	No	Possible (Omission of floodwall in CoSMoS)	Yes (less with project)	Yes

Magnolia Tank Farm Redevelopment Project
Sea Level Rise Vulnerability Assessment and Adaptation Plan

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MagnoliaTankFarm.com

Who to Contact for Additional Information:

James O'Malley
Shopoff Realty Investments
2 Park Plaza, Suite 700
Irvine, CA 92614

P: 949-417-1396 **E: JOMalley@shopoff.com**

MAGNOLIA

TANK FARM

ENVIRONMENTAL CONDITIONS FACT SHEET

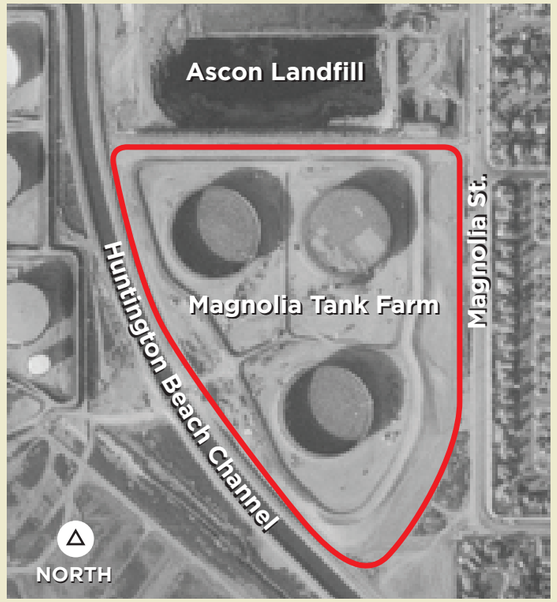
August 2019

Magnolia Tank Farm Redevelopment Project

The 28.9-acre Magnolia Tank Farm project site (Tank Farm Site) is located at 21845 Magnolia Street, on the west side of Magnolia Street at Banning Avenue in the southwestern area of Huntington Beach, California. The Tank Farm Site is presently owned by SLF HB-Magnolia, LLC and is planned for redevelopment with residential, hospitality and open space uses. Prior to the 1960s the Tank Farm Site was used for agricultural purposes. In the late 1960s, the Tank Farm Site was developed with three 25 million-gallon fuel oil aboveground storage tanks (ASTs) as part of the Huntington Beach Generating Station (HBGS). The Tank Farm Site was sold from Southern California Edison (SCE) to Pacific Energy Partners, L.P. in 2003, and in 2007 Pacific Energy Partners sold the Tank Farm Site to Plains All-American Pipeline. In August 2016 Plains All-American Pipeline sold the Tank Farm Site to SLF HB-Magnolia, LLC. In July 2017 the three fuel oil ASTs were demolished and removed from the Tank Farm Site under the oversight of the Huntington Beach Fire Department (HBFD). Thereafter, the Tank Farm Site was leased to AES Southland as a staging and parking area in support of the demolition and re-construction of the adjacent power plant.

Because SLF HB-Magnolia, LLC plans to redevelop the Tank Farm Site, this Project Fact Sheet was prepared to provide:

- **the history of the Tank Farm Site and neighboring properties;**
- **a summary of on and off-site historical soil, soil gas, and groundwater investigations; and**
- **status of on-going on-site investigations, which are being conducted by the former owner operator of the ASTs, SCE, under the direct oversight of the California Department of Toxic Substances Control (DTSC).**



History of the Tank Farm Site

Historical records show that the Tank Farm Site was undeveloped and/or used for agriculture from at least 1938 until SCE constructed three 25 million-gallon fuel oil ASTs some time between 1965 and 1972 as part of the HBGS. Three oil production wells were installed in 1955 and were abandoned under permit in 1971 and 1972. In 1995, DTSC required SCE to investigate environmental conditions at numerous generating stations, including HBGS. Accordingly, environmental assessment of potential impacts to soil, soil gas, and groundwater began at the Tank Farm Site in the mid-1990s and have continued through 2019.

Figure 1 *– Tank Farm Site and Surrounding Properties Prior to Tank Removal. Reference = 1972 Aerial photo from Phase I report dated December 11, 2015*

Environmental Investigations at the Tank Farm Site

Numerous environmental investigations have been conducted on the Tank Farm Site under the oversight of the DTSC. During the investigations, soil samples have been collected from over 150 locations; soil vapor samples have been collected from over 20 locations; and multiple groundwater samples have been collected from throughout the Tank Farm Site. Because the Tank Farm Site was only developed with large ASTs and formerly had three oil production wells, fuel oil and petroleum, which are generally heavy and viscous and contain relatively low volatile organic compound (VOC) concentrations, are the primary contaminants of potential concern.

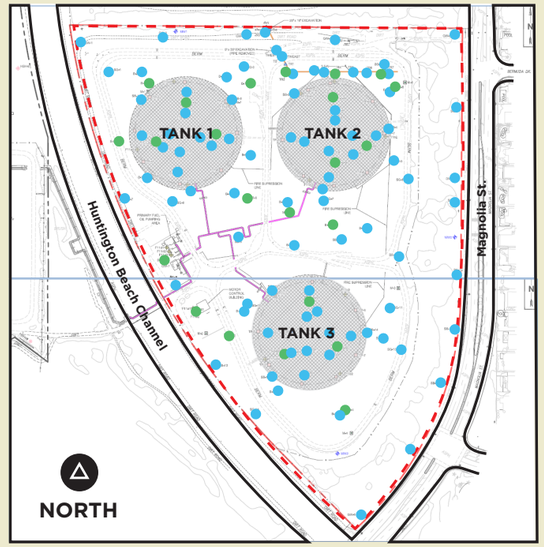


Figure 2 *– Tank Farm Site Historical Soil, Soil Vapor and Groundwater Sampling Locations. Reference = Figures 3 and 4 from the January 5, 2018 EnvApps RTC document*

Ascon Landfill North of the Tank Farm Site

Ascon Landfill is located to the immediate north of the Tank Farm Site and operated as a permitted landfill from 1938 to 1984. A separate branch of the DTSC (as compared with the Tank Farm Site) has overseen numerous environmental investigations and interim remedial actions, and recently approved a Final Remedy, which will include reconsolidation of wastes, capping, and future long-term monitoring operations (for both soil gas and groundwater).

Because of its proximity to the Tank Farm Site, both Ascon and SCE have conducted numerous environmental investigations near their common property boundaries. All of the investigation results for soil, soil gas, and groundwater have shown that Ascon Landfill has not impacted the Tank Farm Site. Groundwater is present below the Ascon Landfill at depths between 10 to 20 feet below ground surface and the groundwater flow direction has consistently been shown to be away from the Tank Farm Site (to the north or northeast). Additionally, historical aerials and other publicly available information has confirmed that Ascon Landfill never operated on the Tank Farm Site.

Figure 3 *– Ascon Landfill Site Features. Reference = Ascon Landfill fact sheet #10 dated October 1, 2009*

Current Environmental Condition and Future Expected Regulatory Requirements for the Tank Farm Site

Currently, results of soil, soil gas, and groundwater samples indicate that no active remediation will be needed for residential use to be allowed by DTSC. As recently, in the Summer of 2019 SCE collected multiple soil samples from 38 locations across the Tank Farm Site to prepare the Final investigation report for the Site. The report is expected to be submitted to DTSC in September 2019 and assuming soil sample concentrations are consistent with previous results for the Tank Farm Site, the report will recommend no further action.

After DTSC concurrence that no further assessment or remedial action are required at the Site, SLF HB-Magnolia, LLC will engage with the City of Huntington Beach Fire Department to fulfill requirements with respect to City Specifications 429 and 431-92 related to methane building protection systems and petroleum in soils for residential development, respectively.

Finally, SLF HB-Magnolia, LLC is in communication with DTSC and Ascon Landfill with respect to future soil gas and groundwater monitoring, which are required in perpetuity by DTSC as part of Operation and Maintenance (O&M) for Ascon's Final Remedy.

Figure 4 *– Groundwater Flow from Tank Farm Site to Ascon Landfill. Reference = Attachment I from Tait's March 15, 2019 Ascon Summary doc*

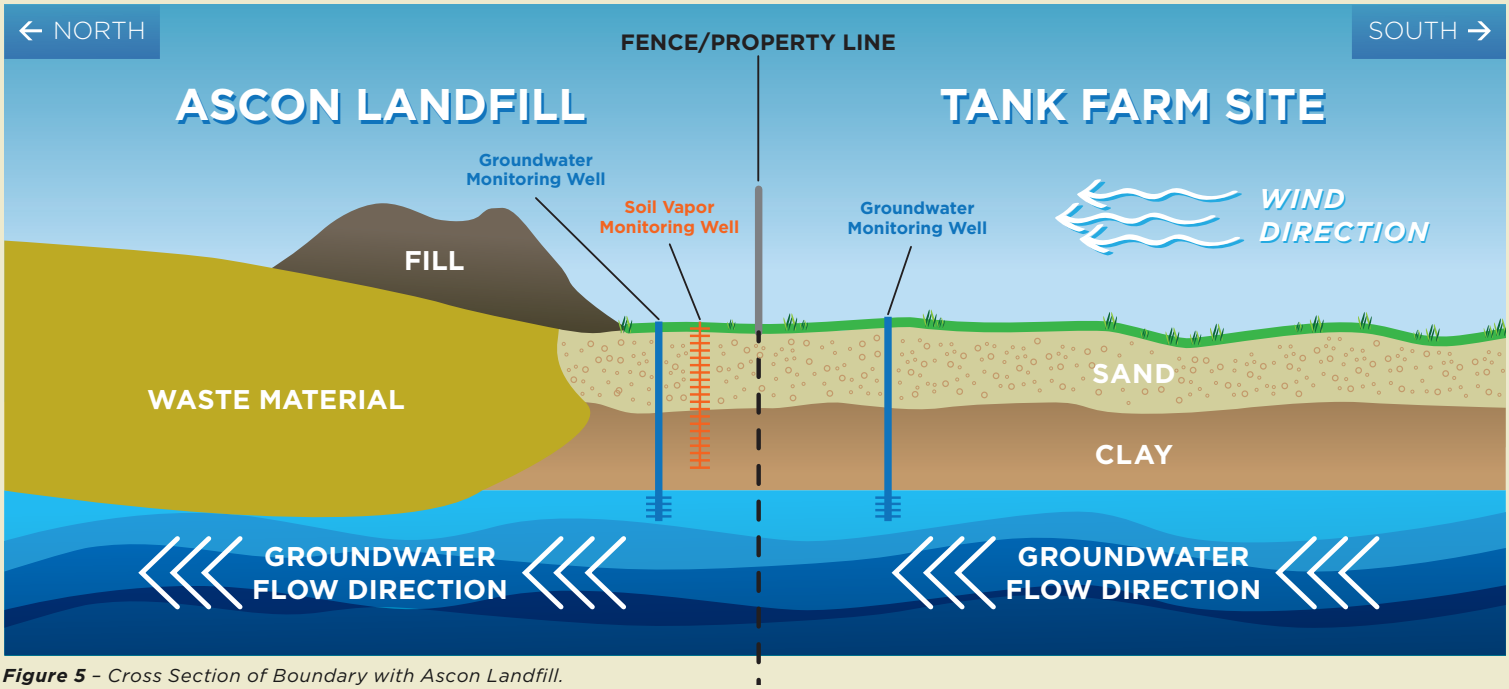


Figure 5 *– Cross Section of Boundary with Ascon Landfill. Reference = Hand drawn by Roux*

MAGNOLIA
TANK FARM

MagnoliaTankFarm.com

Who to Contact for Additional Information:

James O'Malley
Shopoff Realty Investments
2 Park Plaza, Suite 700
Irvine, CA 92614

P: 949-417-1396 E: JOMalley@shopoff.com

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 3:52 PM
To: Ramos, Ricky
Subject: FW: Planning Comission Tank Farm agenda items

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: William Hennerty Jr. <billhennerty@yahoo.com>
Sent: Tuesday, October 22, 2019 3:16 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Planning Comission Tank Farm agenda items

Planning Comission,

I'm here to advocate you vote for simple common sense by utilizing option C- DENY

1. Recommend to not certify Environmental Impact Report No. 17-001 as adequate and complete in accordance with CEQA requirements.

2. Recommend to not approve CEQA Findings of Fact with a Statement of Overriding Considerations.

3. Recommend denial of General Plan Amendment No. 17-001, Zoning Map Amendment No. 17-001, Zoning Text Amendment No. 17-005, Local Coastal Program Amendment No. 17-001, and Development Agreement No. 19-001.

Thank you,

Bill Hennerty

Sent from Yahoo Mail on Android

Ramos, Ricky

From: James, Jane
Sent: Monday, October 21, 2019 5:17 PM
To: Ramos, Ricky
Subject: FW: Support for Tank Farm Project

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

-----Original Message-----
From: Brandon McQuiston <bmcquiston@mac.com>
Sent: Monday, October 21, 2019 3:02 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Support for Tank Farm Project

Dear Planning Commissioners,

I am a Huntington Beach resident and I agree that a rezone of the old Tank Farm property is a better use than the current Public Space zoning. Homes are a better fit than a parking lot, convalescent hospital or government building. Additionally, the hotel, which is a requirement of a coastal zone project will greatly benefit the city financially with much-needed tax dollars going toward city infrastructure and public safety.

Sincerely,

Brandon McQuiston
6322 Winslow Drive
Huntington Beach, CA 92647

Ramos, Ricky

From: Caitlin Jorgensen <caijorgensen@yahoo.com>
Sent: Thursday, October 17, 2019 2:17 PM
To: Ramos, Ricky
Subject: The Magnolia Tank Farm proposal

Dear Mayor Peterson:

I support the plans as proposed for the Magnolia Tank Farm. As a resident, I believe redevelopment such as this is vital to our local economy. There is a great need for additional housing opportunities in the city as well as the state of California. This area of Huntington Beach is also in need of local amenities for the community; the proposed Lodge will bring with it meeting space, outdoor activity and retail to the area.

Please approve this project.

Sincerely,

Caitlin Turner
19952 Gloucester Lane,
Huntington Beach, CA 92646

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
1750 E 4TH ST, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6000
FAX (657) 328-6511
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

October 22, 2019

Mr. Ricky Ramos
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

File: IGR/CEQA
SCH#: 2017101041
IGR Log: 2017-01038
PCH, PM: 22.765
I-405, PM:12.948

Dear Mr. Ramos:

Thank you for including the California Department of Transportation (Caltrans) in the review of the Responses to Comments for the Magnolia Tank Farm (MTF) Project. The proposed Magnolia Tank Farm Project involves two development options at the equal level of consideration. The first option is a mixed-use development comprised of a 211,000 square-foot lodge/guesthouse accommodations with a maximum of 215 rooms, including 175 guest rooms and family/group overnight accommodations with 40 rooms; 19,000 square feet of ancillary and visitor-serving retail and dining; up to 250 for sale, residential units (at 15 dwelling units/acre); 2.8 acres of coastal conservation area to provide a buffer for the adjacent wetlands; and 2.8 acres of park. The second option (alternative 1) consists of the redevelopment of the project site with up to 250 for sale, residential units (at 11 dwelling units/acre), parks, and open space. Alternative 1 does not include the lodge/guesthouse and visitor and resident-serving uses. All other project components would remain the same. The project is located on 21845 Magnolia Street in the City of Huntington Beach and regional access to the site is provided by Pacific Coast Highway (PCH) and Interstate (I-) 405.

Caltrans is a responsible and commenting agency on this project and has the following comments:

Traffic Operations

1. Further analysis is required for the feasibility and cost of the proposed mitigation measures for Superior Avenue/Balboa Boulevard at Pacific Coast Highway and Newport Boulevard at Pacific Coast Highway. Please submit verification on how the project estimates were calculated.

Fair share Contribution

2. Mitigation measure (MM TRAN-2) in the Draft Program EIR, which requires the project applicant to enter into an executed agreement with the City of Newport Beach and/or Caltrans regarding fair share payment to offset the project's contribution of cumulative impacts as the applicable location of Superior Avenue /Balboa Boulevard at Pacific Coast Highway and Newport Boulevard at Pacific Coast Highway would remain applicable. However, because the impacts are outside the City of Huntington Beach Jurisdiction, please coordinate Fair Share Contribution and mitigation measures with City of Newport Beach.

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or would like to meet with us regarding these comments, please do not hesitate to call Maryam Molavi at (657) 328-6280.

Sincerely,

SCOTT SHELLEY.
Branch Chief, Regional-IGR-Transit Planning

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 2:06 PM
To: Ramos, Ricky
Subject: FW: OPPOSE Public Hearing Item 1-Magnolia Tank Farm Project & EIR
Attachments: HBGP Page 22.pdf

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Cari Swan <cswanie@aol.com>
Sent: Tuesday, October 22, 2019 1:31 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: OPPOSE Public Hearing Item 1-Magnolia Tank Farm Project & EIR

Dear Chair Garcia and Planning Commissioners:

I am writing to urge your opposition to the proposed General Plan Amendment, Zoning Text Amendment, Local Coastal Plan Amendment and Development Agreement requested by Applicant Shopoff Development. I will also speak on the subject during Public Hearing this evening but wanted to send some information in advance for you to have available.

In addition to the EIR failing to adequately provide proof of their ability to remediate the environmental dangers of this site, I wish to site what I believe to be the most important reason to deny this project. The reason is contained in our General Plan Section 5 Page 22 under Natural and Environmental Hazards, Goal HAZ-5 (copy of page attached).

> Listed as Item C: Prohibit the future placement of sensitive land uses in close proximity to hazardous material and waste sites.

As we have learned through the dire circumstances created at ASCON during the attempt to remediate (which is only intended to be a partial....not complete remediation), clearly this portion of the General Plan was intended to protect against the known hazards that exit at ASCON, a Superfund Toxic Waste Site.

Please DENY this dangerous project.

Respectfully,
Cari Swan
Mansard Lane, HB

Remediating Brownfield Sites

Due to historical aerospace, oil, and energy production uses and related contamination, several opportunity sites for future cleanup and remediation are located within the community. These sites offer new opportunities for brownfield development and reduce the potential for exposure to contaminants for future generations. For the purposes of this General Plan, brownfield sites are defined as properties that are contaminated and underutilized due to perceived remediation costs and liability concerns. The goals and policies provided below are intended to assist the City in the future development of sites that meet this criteria rather than regulate sites with current hazardous waste activities.

Goal HAZ-5. Environmental cleanup and management of brownfield sites improves environmental quality of life, desirability of surrounding neighborhoods, economic development, and housing options in the community.

Policies

A. Continue to identify, map, and remediate existing hazardous waste sites and require remediation when a property is redeveloped.

B. Encourage use of remediated brownfields for housing, commercial, industrial, public, and recreational uses and for open space opportunities while prioritizing open space uses, energy facilities, and other community-supporting facilities as preferred options for future use of remediated brownfield sites.

C. Prohibit the future placement of sensitive land uses in close proximity to hazardous material and waste sites.

Managing Hazardous Materials and Wastes

While brownfield sites pose a risk from hazardous materials that may have leaked into the environment in previous years, Huntington Beach community members and visitors also face risks from hazardous materials that are transported through the community or used as part of current activities, including vehicle and pipeline transport. The City can reduce risks from these materials by ensuring that proper safety practices are in place, and that emergency responders and community members have information necessary to protect themselves.

Goal HAZ-6: The risk of exposure to hazardous materials in Huntington Beach is substantially decreased.

Policies

A. Avoid locating facilities that use, store, transport, process, or dispose of hazardous materials near residential areas or other sensitive uses.

B. Promote the use of roadways with minimal exposure to residential areas or other sensitive uses as routes suitable for transporting hazardous materials.

Ramos, Ricky

From: De Coite, Kim
Sent: Thursday, October 24, 2019 8:41 AM
To: Ramos, Ricky
Subject: FW: Concerned citizen

Kimberly De Coite
Administrative Assistant
Department of Community Development
714-536-5276
kdecoite@surfcity-hb.org

From: Dombo, Johanna <Johanna.Dombo@surfcity-hb.org>
Sent: Thursday, October 24, 2019 7:59 AM
To: Agenda Comment <agendacomment@surfcity-hb.org>; De Coite, Kim <KDeCoite@surfcity-hb.org>
Subject: FW: Concerned citizen

From: christine zeutzius <cz3boys@gmail.com>
Sent: Wednesday, October 23, 2019 8:26 PM
To: CITY COUNCIL <city.council@surfcity-hb.org>
Cc: Christine Zeutzius <cz3boys@gmail.com>
Subject: Concerned citizen

Dear City Council Members,

My name is Christine Zeutzius and I'm a 20 year, South Huntington Beach homeowner and resident. I'm also a 2nd grade teacher at Hawes Elementary School and our three boys attend Sowers Middle School and Edison High School. Since every part of my family's day is spent in South Huntington, I've been listening intently to all the information (and lack of information) coming from the Tank Farm/Shopoff Project.

I am extremely concerned that the appointed Planning Commission voted 5-2 in favor of recommending Magnolia Tank Farm/Shopoff Realty project's EIR certification.

I vehemently oppose this project and ask that you do so as well, when this project comes before you on December 16 for adoption.

You know what is at stake. Please take a moment to ask yourself these honest questions. Would you desire to live next to this project or have your children attend a school across the street? Would you chose to move into the neighborhoods that border this project? If your answer is emphatically NO, then I urge you to vote "no" on the Magnolia Tank Farm Project.

It's time to protect South Huntington's present and future. We are all hopeful...and intently watching.

Christine Zeutzius
20381 Ravenwood Ln
HB CA 92646

October 16th, 2019

RE: Magnolia Tank Farm

Dear Huntington Beach Planning Commission Members,

I have lived in Huntington Beach for 53 years, attending Eader, Gisler (Sowers) and Edison as a child, proudly putting our kids through those same schools. We have seen Huntington Beach evolve first hand over the years, sometimes struggling, often times rising to the occasion. I feel strongly the proposed new development, the Magnolia Tank Farm, is one of those moments we will look back on as a crossroads, proud we spoke up in favor of the project.

I would like the Tank Farm project to be successful as a part of the Southeast Huntington Beach community. I would like to see the benefits of this project come to fruition to the betterment of our community. The benefits far outweigh the short term inconveniences.

For the record, a few very outspoken individuals in our neighborhood do not speak for the more than 400-plus households in our our corner of HB, let alone the more than 200,000 residents of the city. The majority of the residents in our Southeast corner of HB are very aware of the continued social media rhetoric being shared, but simply wish not to be singled out for disagreement. It is sad reality of social media. Please be aware of this trend.

I understand that the Coastal Commission and the city's LCP requires the Magnolia Tank Farm development to provide visitor-serving uses. Given a choice, I feel an all residential final plan would be a best fit for our area. If that is not an viable final plan, I would support the small low profile boutique hotel that I have seen in conceptual drawings. The boutique hotel and local visitor guest access would be a compliment to our area and serve as a local meeting and gather location (coffee shop, restaurant / bar, etc).

I am aware the proposed Magnolia Tank Farm project would require zoning changes to this area. I would support those changes. My understanding, the property is currently zoned for Public use, which could entail the plausible construction of a senior living campus or similar. This would not compliment to our area. Knowing the land is privately owned, I am certain something will be build there. Hopeful to encourage good choices by our HB leadership, I am writing this note, to ensure the majorities voice is being heard.

We know there are issues in our area that are being addressed, ASCON, AES, Poisidon and Magnolia Tank Farm. They are independent issues that have been lumped together to create an unrealistic environment for any meaningful progress to be made. I would encourage our HB Planning Commission and City Council to weed through the emotional grandstanding and simply look at the facts and science. The wasted time and funds to bring these projects to completion is unto itself a lesson in deferring the responsibility to move forward.

I feel strongly the Tank Farm project would be benefit to our are and hopeful you will agree to approve the plans as presented.

Thank you for the gift of your time,

David Wetzel

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 8:28 AM
To: Ramos, Ricky
Subject: FW:

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Deryl Robinson <derylrobinson@outlook.com>
Sent: Monday, October 21, 2019 7:13 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: Magnolia Tank Farm <info@magnoliatankfarm.com>
Subject:

Dear HB Commissioners,

I am writing to express my support for the plans for the Magnolia Tank Farm project. I have done a lot of research on this proposed project and am convinced it will be a strong net positive to Huntington Beach and more particularly Southeast Huntington Beach. Moreover, our whole region is in a severe deficit for housing, and this project will do much to alleviate it, with a size of home and density that appropriate for our area.

Please recommend approval to the city council.

Thank you,

Regards,

Deryl Robinson
10101 El Capitan Dr
Huntington Beach, CA 92646
949-637-2607

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 2:00 PM
To: Ramos, Ricky
Subject: FW: DENY Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Gino J. Bruno <gbruno@socal.rr.com>
Sent: Tuesday, October 22, 2019 12:41 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: CITY COUNCIL <city.council@surfcity-hb.org>; Chi, Oliver <oliver.chi@surfcity-hb.org>
Subject: DENY Magnolia Tank Farm

Planning Commissioners:

With respect to the Magnolia Tank Farm, please do the right thing, and vote for Option "C" at your meeting this evening; namely,

> "C. Deny
>
> "1) Recommend to not certify Environmental Impact Report No. 17-001 as adequate and complete in accordance with CEQA requirements; and
>
> "2) Recommend to not approve CEQA Findings of Fact with a Statement of Overriding Considerations; and
>
> "3) Recommend denial of General Plan Amendment No. 17-001, Zoning Map Amendment No. 17-001, Zoning Text Amendment No. 17-005, Local Coastal Program Amendment No. 17-001, and Development Agreement No. 19-001."

Thank you.

Gino J. Bruno
Huntington Beach

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 3:53 PM
To: Ramos, Ricky
Subject: FW: Resident of Southeast Huntington Beach

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Greg Villegas <gvillegas@watg.com>
Sent: Tuesday, October 22, 2019 3:43 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Resident of Southeast Huntington Beach

To whom it may concern,
I own a residence at The Franciscan Fountains neighborhood and I support the planned uses at the Magnolia Tank Farm. This project will be a great asset for the residence and City alike.

Thank you.
Greg Villegas

Mayor Erik Peterson & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Peterson;

I am writing to express my support for the Magnolia Tank Farm Specific Plan. As a member of the local business community, I look forward to the transformation of this property from its former use as an oil storage facility to a vibrant new mixed-use community. The revitalization of this property, along with the new AES plant, will dramatically improve the aesthetics of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star hotel to the city's existing inventory will bolster the city's vital tourism industry. Designing the "Lodge" to attract ecotourism will enable the city to address an underserved segment of the tourism industry that is expanding nation-wide. More quality meeting and conference space with upscale restaurants will not only serve the needs of businesses but residents as well.

The development envisioned in the Tank Farm Specific Plan will serve as an economic engine for the city. According to a 2019 economic impact analysis prepared by Kosmont & Associates, the mixed-use community will generate $2.4 million annually in net revenue to the city – tax revenue that can be used for public safety, public works infrastructure and other city services. In addition, the project will result in the creation of over four hundred construction jobs and three hundred permanent jobs. The economic output during construction is estimated at $75 million with another $34 million in annual economic output over the life of the project. All of this economic activity will be generated from a parcel of land that for the last fifty years has been an eyesore to the community while generating virtually no tax revenue.

In closing, the mixed-use community proposed for the Tank Farm property can produce three very important benefits for the city – significant new tax revenue, quality housing and hundreds of jobs for Huntington Beach residents. As the stewards of the city, it is imperative that the council take into consideration the economic wellbeing of the city and its residents when deciding on this proposal. The opportunity to redevelop a parcel of land this size seldom comes around. I urge you to capitalize on it.

Sincerely,

John Hobson, Toby Hobson

CEO, CTECO

Board Chair HB Chamber of Commerce

1824 Port Tiffin Pl

Newport Beach, CA 92660

Ramos, Ricky

From: James, Jane
Sent: Thursday, October 24, 2019 8:07 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Ian Harvey <ianmichaelharvey@yahoo.com>
Sent: Tuesday, October 22, 2019 4:11 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: info@magnoliatankfarm.com
Subject: Magnolia Tank Farm

Dear Commissioners,

I support the plans for the Magnolia Tank Farm. I think it will be a good project for the neighborhood and the City.

Please recommend approval to the city council.

Thank you,

Ian Harvey
Resident of Huntington Beach

Sent from Yahoo Mail on Android

Mayor Erik Peterson & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Peterson;

I am writing to express my support for the Magnolia Tank Farm Specific Plan. As a member of the local business community, I look forward to the transformation of this property from its former use as an oil storage facility to a vibrant new mixed-use community. The revitalization of this property, along with the new AES plant, will dramatically improve the aesthetics of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star hotel to the city's existing inventory will bolster the city's vital tourism industry. Designing the "Lodge" to attract ecotourism will enable the city to address an underserved segment of the tourism industry that is expanding nation-wide. More quality meeting and conference space with upscale restaurants will not only serve the needs of businesses but residents as well.

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In closing, the mixed-use community proposed for the Tank Farm property can produce three very important benefits for the city – significant new tax revenue, quality housing and hundreds of jobs for Huntington Beach residents. As the stewards of the city, it is imperative that the council take into consideration the economic wellbeing of the city and its residents when deciding on this proposal. The opportunity to redevelop a parcel of land this size seldom comes around. I urge you to capitalize on it.

Sincerely,

3/23/19

DOMENIC IORFINO

15932 WILLETT CIR. HB

Magnolia Tank Farm Project

Hello my name is Issam Naber and I have many ties to Huntington Beach. I lived and went to school in Huntington Beach. My family moved to HB in 1973 I attended Perry Elementary School, Dwyer Middle School and Huntington Beach High School. My mother, brother and sister currently live in Huntington as well as 3 of my cousins. I moved to South Orange County in 2009 for work and to start a family. I have always wanted to return to Huntington Beach and plan to one day.

I am very familiar with the proposed site and very excited to hear that new housing and lodging is being proposed for this area. I want my kids to experience the beach life that I had growing up and am very anxious to see this area get developed and expand the housing availability of both single family residences and townhomes.

Having the parks and wetlands available for our kids and schools to explore and learn is such a benefit to the community and educators. The opportunities for wetland stewardship, and outreach programs is vital for our kids and all of us who care about the environment.

Most importantly, it's great to hear that there is no contamination based on the over 165 borings that have been completed.

Thank you,

Issam Naber

Ramos, Ricky

From: James, Jane
Sent: Thursday, October 24, 2019 8:15 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Janet Bean <janetsjunkmail123@gmail.com>
Sent: Thursday, October 24, 2019 8:04 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Chairman Garcia and fellow Planning Commissioners:
Tuesday you will be tasked with a decision of historic implications. I'm sure each of you realize that and want to make a decision history will look back on favorably.
I'm here to advocate you vote for simple common sense by utilizing option C- DENY

1. Recommend to not certify Environmental Impact Report No. 17-001 as adequate and complete in accordance with CEQA requirements; and
2. Recommend to not approve CEQA Findings of Fact with a Statement of Overriding Considerations; and
3. Recommend denial of General Plan Amendment No. 17-001, Zoning Map Amendment No. 17-001, Zoning Text Amendment No. 17-005, Local Coastal Program Amendment No. 17-001, and Development Agreement No. 19-001.

Throughout the process of examining the EIR I have been concerned how each of you could eventually vote to deny. After all, EIR's are typically written in such a way to make the negative aspects of a project more palatable to you and the community. Mitigation suggestions are provided, and everything is wrapped up in a nice package.
But this is property is in such close proximity to another that it is hard to separate the two. Ascon has been a blight on our city for decades. We know of the toxicity that exists in that plot of land. DTSC also thought they understood the issues. They developed a remediation plan that they originally thought was sufficient. But when they began the remediation process, as you know, things fell apart. People began getting sick. Complaints were made. DTSC was forced to shut down the project and re-think the complete remediation process. Deputy Director Cope has made several alterations to the remediation process. Why? Because, once begun, the DTSC realized the process was inadequate. Their thoughts about the property, with all their analysis, was wrong.
So here we are with the Magnolia Tank Farm property, separated from Ascon by a chain link fence. Are we to believe the results of the EIR when the governmental agency tasked with remediating the decades old toxic landfill next door were so wrong? Can you really have confidence in this EIR? Are you willing to stake your reputations on this?
We all know that once approved the city will bear no legal responsibility. That responsibility will be transferred to the developers. The residents will go to city council meeting after city council meeting and be told the same thing they were told in the past few months about Ascon, "It's out of our hands. We have no jurisdiction over the property". Do you want your legacy to be that you put residents in that position? I really don't think you do.
So, back to my original concern. How do you deny a project with an EIR that provides all the answers? Simple. You use common sense and see how wrong DTSC was about Ascon. You realize that the risk involved in this project is not worth the reward. You explain to Shopoff that their timing of the purchase of the Magnolia Tank Farm is unfortunate. You tell them that, in good conscious, you cannot make a decision in their favor. You tell them to come back five years after the Ascon remediation process is complete and the process can be re-started.

But for now, you must vote to DENY.
Thank you for taking the time to read my thoughts. I, along with the rest of Huntington Beach, will be watching to see how you vote on this historic issue.
Best regards,
Janet Bean

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 11:01 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Jerry Uselton <juselton@fuscoe.com>
Sent: Tuesday, October 22, 2019 10:41 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: info@magnoliatankfarm.com; Marlo Mole <marlo@nabermole.com>
Subject: Magnolia Tank Farm

Dear Commissioners,

I support the plans for the Magnolia Tank Farm. Please recommend approval to the city council.

Thank you,

JERRY USELTON, PLS |
Principal, Senior Survey & Mapping Manager
juselton@fuscoe.com
CONNECT WITH ME

FUSCOE ENGINEERING, INC.
an employee owned company

16795 Von Karman, Suite 100, Irvine, CA 92606
949.474.1960 | fuscoe.com

IRVINE . SAN DIEGO . ONTARIO . LOS ANGELES . EL CENTRO . SAN RAMON . MISSION HILLS

Ramos, Ricky

From: James, Jane
Sent: Monday, October 21, 2019 5:17 PM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Richard Smyser <smyser1@verizon.net>
Sent: Monday, October 21, 2019 3:09 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: smyser1@verizon.net
Subject: Magnolia Tank Farm

Dear commissioners,

My name is Judy Smyser and I live at 9072 Rhodesia. Dr. in Huntington Beach.

My husband and I are 45 year residents and have raised 3 kids here.

We are writing to the Planning Commission to vehemently protest any development on the site referred to as the Magnolia Tank Farm. It is difficult to realize that anyone would want to reside in an area with so many known health hazards or that any one would be allowed to build residential dwellings on such a contaminated site.

To the north of the proposed site is the ASCON Dump, and is separated by a chain link fence. We have all seen the reports for what is in the ASCON Dump. The city of Huntington Beach will be responsible for all health issues arising at the proposed home sites.

The proposed development will have a negative impact on Edison Highschool, Eader Elementary School, and the streets in the area.

Please do not rezone this site.

Sincerely,

Judy and Rick Smyser

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 8:30 AM
To: Ramos, Ricky
Subject: FW: Shopoff Tank Farm issues

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Julie Nevins-Gabrion <jnevinsgabrion@msn.com>
Sent: Tuesday, October 22, 2019 6:05 AM
To: Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Cc: stvzput@msn.com
Subject: Shopoff Tank Farm issues

We, as residents who live on Susan Lane in Southeast Huntington Beach, are extremely concerned about all of the activities, both current and planned, that are being conducted pertaining to the Shopoff Tank Farm project. Those of us who have to endure the never-ending onslaught of disruption in so many ways need to be considered and our way of life respected.

It appears that big developers such as Shopoff have a much-greater say in the "development" of our precious community, and the fact that its activities are threatening us in air, noise and other pollution is more than enough reason to put a halt to this "development". Why on earth Shopoff would want to "develop" any type of construction, particularly of the magnitude in its plans, is beyond belief. That it is planned on a landfill full of toxic chemicals is of no bearing, apparently, since the outcome would be millions of dollars in revenue for Shopoff and the other companies who participate in this assault to the well-being and quality of life for all of the residents of the adjoining area, not to mention any future residents who decide to become part of the Tank Farm community, or those who frequent it on vacation at Shopoff's proposed hotel.

Obviously, the protocol for ensuring our safety is not being followed until a concerned resident brings to its attention that there are signs/symptoms being displayed by the residents; only then does Shopoff address them. The proverbial "closing the barn door after the horse has bolted" comes to mind..

This project needs to be halted immediately; obviously there have not been sufficient studies of all of the negative impacts this project will generate - with our health (a current issue already) and with the dramatically increased traffic, noise, congestion, etc. It's apparent that none of the developers at Shopoff will be residing in any of the structures planned - we seriously doubt that they would want to expose themselves and their families to all that they have no problem inflicting upon us...

Please - consider all of the residents of our community - we do not deserve this and it wasn't something we "signed up for" when we invested our hard-earned money (and pay yearly property taxes to maintain) to live in our peaceful, quiet community.

Sincerely,

Julie Nevins-Gabrion
Steve Gabrion
22032 Susan Lane

Huntington Beach, CA 92646

Ramos, Ricky

From: Agenda Comment
Sent: Tuesday, October 22, 2019 11:28 AM
To: Ramos, Ricky
Subject: FW: Tank farm

Robin Estanislau, CMC, City Clerk
City of Huntington Beach
714-536-5405

Please consider the HB City Clerk's office for your passport needs!

-----Original Message-----
From: Dombo, Johanna <Johanna.Dombo@surfcity-hb.org>
Sent: Tuesday, October 22, 2019 9:03 AM
To: Agenda Comment <agendacomment@surfcity-hb.org>
Cc: Fikes, Cathy <CFikes@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Subject: FW: Tank farm

AGENDA COMMENT

-----Original Message-----
From: Kathleen Brown <heykathybrown@gmail.com>
Sent: Tuesday, October 22, 2019 9:01 AM
To: CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Tank farm

Please vote to DENY until completely remediate. Too much risk until then. No harm in waiting.

Thank you!

Sent from my iPhone

Ramos, Ricky

From: James, Jane
Sent: Thursday, October 24, 2019 8:09 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: KELLI INMAN <2kelli.inman@gmail.com>
Sent: Tuesday, October 22, 2019 8:44 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Chairman Garcia and fellow Planning Commissioners:

Tuesday you will be tasked with a decision of historic implications. I'm sure each of you realize that and want to make a decision history will look back on favorably.

I'm here to advocate you vote for simple common sense by utilizing option C- DENY

1) Recommend to not certify Environmental Impact Report No. 17-001 as adequate and complete in accordance with CEQA requirements; and

2) Recommend to not approve CEQA Findings of Fact with a Statement of Overriding Considerations; and

3) Recommend denial of General Plan Amendment No. 17-001, Zoning Map Amendment No. 17-001, Zoning Text Amendment No. 17-005, Local Coastal Program Amendment No. 17-001, and Development Agreement No. 19-001.

Throughout the process of examining the EIR I have been concerned how each of you could eventually vote to deny. After all, EIR's are typically written in such a way to make the negative aspects of a project more palatable to you and the community. Mitigation suggestions are provided, and everything is wrapped up in a nice package.

But this is property is in such close proximity to another that it is hard to separate the two. Ascon has been a blight on our city for decades. We know of the toxicity that exists in that plot of land. DTSC also thought they understood the issues. They developed a remediation plan that they originally thought was sufficient. But when they began the remediation process, as you know, things fell apart. People began getting sick. Complaints were made. DTSC was forced to shut down the project and re-think the complete remediation process. Deputy Director Cope has made several alterations to the remediation process. Why? Because, once begun, the DTSC realized the process was inadequate. Their thoughts about the property, with all their analysis, was wrong.

So here we are with the Magnolia Tank Farm property, separated from Ascon by a chain link fence. Are we to believe the results of the EIR when the governmental agency tasked with remediating the decades old toxic landfill next door were so wrong? Can you really have confidence in this EIR? Are you willing to stake your reputations on this?

We all know that once approved the city will bear no legal responsibility. That responsibility will be transferred to the developers. The residents will go to city council meeting after city council meeting and be told the same thing they were told in the past few months about Ascon, “It’s out of our hands. We have no jurisdiction over the property”. Do you want your legacy to be that you put residents in that position? I really don’t think you do.

So, back to my original concern. How do you deny a project with an EIR that provides all the answers? Simple. You use common sense and see how wrong DTSC was about Ascon. You realize that the risk involved in this project is not worth the reward. You explain to Shopoff that their timing of the purchase of the Magnolia Tank Farm is unfortunate. You tell them that, in good conscious, you cannot make a decision in their favor. You tell them to come back five years after the Ascon remediation process is complete and the process can be re-started.

But for now, you must vote to DENY.

Thank you for taking the time to read my thoughts. I, along with the rest of Huntington Beach, will be watching to see how you vote on this historic issue.

Best regards,

Kelli Inman

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 8:28 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Kevin Dow <kdowsc@gmail.com>
Sent: Monday, October 21, 2019 6:57 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: info@magnoliatankfarm.com
Subject: Magnolia Tank Farm

Dear Commissioners,

I support the plans for the Magnolia Tank Farm. Please recommend approval to the the City Council.

Thank you,

Kevin Dow
Haviland Drive
Huntington Beach

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 8:34 AM
To: Ramos, Ricky
Subject: FW: Agenda Item (10/22/2019) 19-845 Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: K Carroll <kcrissie7@gmail.com>
Sent: Tuesday, October 22, 2019 8:33 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Agenda Item (10/22/2019) 19-845 Magnolia Tank Farm

We are long time residents and homeowners of Huntington Beach. Please vote No on the development on the Magnolia Tank Farm on the Agenda this evening. There are health risks, environmental impacts current and long term and safety concerns relating to traffic congestion on now on all side streets especially on Magnolia where the incidents of car accidents have increased to sometime multiple in one day. PCH can not handle the congestion that will impact emergency response for Beach Incidents as well as surrounding residents. I, my family along with multiple residents do not believe the remediation will resolve the toxic elements in the soil and will be proven. This is a development scheme that will in no way benefit the residents of Huntington Beach.

Thank you for hearing and supporting the residents of Huntington Beach that you were elected to represent.

Best regards,

Kris Carroll

October 18, 2019

Dear Planning Commissioners,

I am writing to you regarding the proposal by Shopoff for the tank farm.

Living in South Huntington Beach and having kids who attended Edison High School, I have seen the ugly, rotting oil tank structures off Magnolia on a regular basis.

Frankly I'm glad that they are gone – removed at no cost to taxpayers by Shopoff Realty Investments. In the years ahead the remediated site – pending City Council and Coastal Commission approval - would be replaced by the sensible, city revenue-generating development described in the Tank Farm Draft Environmental Impact Report.

The planned 250-unit, low-rise, mid-density housing and 215-room lodge community will complement surrounding neighborhoods. It brings a much-needed new park and greater public access to Magnolia Marsh through newly created hiking trails.

Like everyone else I want what's best for our community, property values and our quality of life. That's why I support this project and hope that you will do the same.

Thank you,

Lance Huante
9812 Kite Drive, Huntington Beach, CA 92627

Cc: Ricky Ramos, City of Huntington Beach Planner
rramos@surfcity-HB.org

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 12:13 PM
To: Ramos, Ricky
Subject: FW: Shopoff Public Comments.

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: larry mcneely <lmwater@yahoo.com>
Sent: Tuesday, October 22, 2019 12:13 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Shopoff Public Comments.

I would like to get on the public comments record in regards to the Shopoff Development . I am opposed to this project and changing of any zoning or general plan to accommodate this developer. I find no public benefit in supporting these changes, this project does not fit and should be Denied. We as a community must not support the Pay for Play efforts the Shopoff has done to buy votes and his offer of Quid Pro Que to fund the remodel of Edison HS pool if his project is approved. Please include my opposition to the public comments.

Thank You
Larry Mc Neely

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 11:01 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

-----Original Message-----
From: Madeline Pacilio-Brand <mpaciliobrand@yahoo.com>
Sent: Tuesday, October 22, 2019 10:28 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Dear Chairman Garcia and fellow Planning Commissioners,

As a 30 plus year resident of Southeast Huntington Beach, I am writing to you to ask you to please DENY Magnolia Tank Farms.

Thank you.

Respectfully submitted,
Madeline Pacilio-Brand
21571 Kanakoa Lane
Huntington Beach, Ca. 92646

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 9:29 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm vote

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: MARY JULIENNE <mjsfishstick@msn.com>
Sent: Tuesday, October 22, 2019 9:15 AM
To: Planning Commission <planning.commission@surfcity-hb.org>; CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Magnolia Tank Farm vote

City planners and council,
You represent the entire city of Huntington Beach and need to vote against the Magnolia Tank Farm project. This project is separated from the toxic Ascon landfill by a chain link fence. This land has been continually flooded with toxic Ascon runoff and chemical vapors which will continue past cleanoff for decades just like Love Canal.
This project is located in flood, earthquake liquefaction and methane-releasing zones and backs up to the protected wetlands which were only recently recovered from years of neglect and artificial drying out.
Your NO vote will ensure that Love Canal does not occur again making the city of Huntington Beach liable for billion dollar litigation in damages and loss of life adding homes and hotel to the toxic swamp.
DO NOT REZONE! Voters are watching you and your response to this ill fated attempt by Shopoff. VOTE NO!!!
Mary & Don Julienne
21172 Poston Lane

Ramos, Ricky

From: De Coite, Kim
Sent: Thursday, October 24, 2019 8:41 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm/Shopoff Realty project's EIR certification. VOTE NO

Kimberly De Coite
Administrative Assistant
Department of Community Development
714-536-5276
kdecoite@surfcity-hb.org

From: Dombo, Johanna <Johanna.Dombo@surfcity-hb.org>
Sent: Thursday, October 24, 2019 8:06 AM
To: Agenda Comment <agendacomment@surfcity-hb.org>; De Coite, Kim <KDeCoite@surfcity-hb.org>
Subject: FW: Magnolia Tank Farm/Shopoff Realty project's EIR certification. VOTE NO

From: Mary <mary.ransbury@gmail.com>
Sent: Wednesday, October 23, 2019 7:52 PM
To: CITY COUNCIL <city.council@surfcity-hb.org>
Subject: Magnolia Tank Farm/Shopoff Realty project's EIR certification. VOTE NO

Dear Councilperson,
Thank you for your service to Huntington Beach.
My name is Mary Ransbury and I have lived in HB for over 18 years. I have worked as an RN for Huntington Beach Hospital, have worked as a CCOO for the only community trauma center along with many other hospitals in the surrounding area.
I am extremely concerned that the appointed Planning Commission voted 5-2 in favor of recommending Magnolia Tank Farm/Shopoff Realty project's EIR certification.
I vehemently oppose this project and ask that you do so as well, when this project comes before you on December 16 for adoption.
I stand against this project for the following reasons: *(Delete, add, expand, rephrase as needed)*
A 3-story "lodge", requiring 3000 piles driven into the ground to build, next to fragile, toxic waste pits - is unsafe, unsightly, and unacceptable in its location across the street from Edison High School.
Over 250 medium density homes do not belong just feet from a noisy, pollution-generating power plant; nor should innocent families be sold a home adjacent to one of the most toxic landfills in California. There is off-gassing of chemicals and chemical migration underneath the soil that will never be resolved. Soil gases will put these families in extreme danger of toxic exposures and resulting diseases.
In addition, Eader Elementary School already experiences high levels of PM10 pollution, at times to unhealthy levels. This project will further raise pollution for our most fragile citizens - our children.
The traffic and parking issues of this project are beyond mitigation.
The residents of South Huntington Beach bear more than their share of air, soil and noise pollution, due to the AES power plant and the Ascon Landfill.
Please, vote "no" on the Magnolia Tank Farm Project. Protect our precious community!
Your Neighbor,
908 Pecan Ave HB 92648
--

Regards
Mary Ransbury
714.580.8458

October 21, 2019

RE: SUPPORT FOR SHOPOFF REALTY PLANS FOR TANK FARM

Dear Planning Commissioners:

I would like to express my support for Shopoff Realty Investments' proposal for homes and a lodge on the Tank Farm property in Huntington Beach. I am an advocate for responsible development, thoughtful planning and development projects that shed a positive light on our industry.

Shopoff is proposing a project that not only complements and provides suitable transitions to the existing surrounding land uses, but also improves the area by removing a blighted property and replacing it with uses that bring much-needed funds to the city as well as desperately needed housing options to the area. In this case, the plan places compatible housing next to existing residential. The lodge is placed near existing industrial uses and overlooking the wetlands separated with a large buffer to protect this resource while also promoting its educational value to residents and guests alike.

As the housing crisis in southern California continues, we are desperate for new housing—move-up opportunities for grown children moving back to their "hometown," expanding families needing a larger floor plan, and empty-nesters downsizing.

From an economic perspective, revitalization of the Tank Farm can only increase neighboring property values and provide a much-needed boost to Southeast Huntington Beach. And, of course, taxes generated will undoubtedly benefit the city's infrastructure, public safety and other city-funded needs.

In my opinion, this project will only provide positive changes to the area. I hope that you agree and vote YES when it is brought before you for approval.

Sincerely,

Nicole Burdette

TRI Pointe HOMES

THINK RENEW **INSPIRE**

October 22, 2019

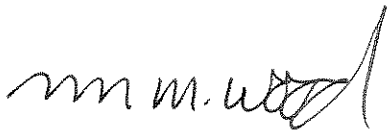
Huntington Beach Planning Commission:

As a Huntington Beach resident, as well as the Building Industry Association's Orange County Chapter President, I would like to lend my support to the proposal for the Tank Farm property.

The current Public Space zoning is not the best use for the property, nor would it be the most financially beneficial to the city.

Based on our overwhelming success at our Windbourne Community, which you approved last year, I can attest that there is a genuine demand for new homes in Huntington Beach. I hope you will agree and vote for this project.

Sincerely,



Rick M. Wood
Vice President, Project Management

5 Peters Canyon Road, Suite 100, Irvine, CA 92606 ▪ p. 949.478.8600 ▪ f. 949.438.1401 ▪ TriPointeHomes.com

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 8:41 AM
To: Ramos, Ricky
Subject: FW: Magnolia Tank Farm

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Rob Pool- Gmail <rob.pool.oc@gmail.com>
Sent: Tuesday, October 22, 2019 8:36 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: Magnolia Tank Farm

Chairman Garcia and fellow Planning Commissioners:

Tuesday you will be tasked with a decision of historic implications. I'm sure each of you realize that and want to make a decision history will look back on favorably.

I'm here to advocate you vote for simple common sense by utilizing option C- DENY

1. Recommend to not certify Environmental Impact Report No. 17-001 as adequate and complete in accordance with CEQA requirements; and
2. Recommend to not approve CEQA Findings of Fact with a Statement of Overriding Considerations; and
3. Recommend denial of General Plan Amendment No. 17-001, Zoning Map Amendment No. 17-001, Zoning Text Amendment No. 17-005, Local Coastal Program Amendment No. 17-001, and Development Agreement No. 19-001.

Throughout the process of examining the EIR I have been concerned how each of you could eventually vote to deny. After all, EIR's are typically written in such a way to make the negative aspects of a project more palatable to you and the community. Mitigation suggestions are provided, and everything is wrapped up in a nice package.

But this is property is in such close proximity to another that it is hard to separate the two. Ascon has been a blight on our city for decades. We know of the toxicity that exists in that plot of land. DTSC also thought they understood the issues. They developed a remediation plan that they originally thought was sufficient. But when they began the remediation process, as you know, things fell apart. People began getting sick. Complaints were made. DTSC was forced to shut down the project and re-think the complete remediation process. Deputy Director Cope has made several alterations to the remediation process. Why? Because, once begun, the DTSC realized the process was inadequate. Their thoughts about the property, with all their analysis, was wrong.

So here we are with the Magnolia Tank Farm property, separated from Ascon by a chain link fence. Are we to believe the results of the EIR when the governmental agency tasked with remediating the decades old toxic landfill next door were so wrong? Can you really have confidence in this EIR? Are you willing to stake your reputations on this?

We all know that once approved the city will bear no legal responsibility. That responsibility will be transferred to the developers. The residents will go to city council meeting after city council meeting and be told the same thing they were

told in the past few months about Ascon, “It’s out of our hands. We have no jurisdiction over the property”. Do you want your legacy to be that you put residents in that position? I really don’t think you do.

So, back to my original concern. How do you deny a project with an EIR that provides all the answers? Simple. You use common sense and see how wrong DTSC was about Ascon. You realize that the risk involved in this project is not worth the reward. You explain to Shopoff that their timing of the purchase of the Magnolia Tank Farm is unfortunate. You tell them that, in good conscious, you cannot make a decision in their favor. You tell them to come back five years after the Ascon remediation process is complete and the process can be re-started.

But for now, you must vote to DENY.

Thank you for taking the time to read my thoughts. I, along with the rest of Huntington Beach, will be watching to see how you vote on this historic issue.

Best regards,

Rob Pool

Ramos, Ricky

From: James, Jane
Sent: Monday, October 21, 2019 12:01 PM
To: Ramos, Ricky
Subject: FW: Upcoming Tank Farm Meeting

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: Steven LaMotte <lamotte14@gmail.com>
Sent: Monday, October 21, 2019 11:44 AM
To: Planning Commission <planning.commission@surfcity-hb.org>
Cc: info@magnoliatankfarm.com
Subject: Upcoming Tank Farm Meeting

To Whom it May Concern,

My name is Steve LaMotte and I am a Huntington Beach Homeowner within the notice ring of the upcoming Tank Farm development. I am in support of new housing for several reasons. Mainly, we are a growing family, and will eventually want "buy up" as we are currently in a small single story home. We have two growing kids, and we (and I hope my kids) would like to stay in this area. It's very difficult (even with equity) to buy a basic single family home in this area. Contributing more homes to this area will only be a positive - and would give local residents more options when looking to buy up.

In addition, as residents, we can't currently utilize this land. If homes, and a lodge are approved, my family will be able to enjoy this land.

Thank you,

Steve LaMotte

--
Steven LaMotte
LaMotte14@gmail.com

Ramos, Ricky

From: James, Jane
Sent: Tuesday, October 22, 2019 3:52 PM
To: Ramos, Ricky
Subject: FW: We are watching!

FYI

Jane James | Planning Manager
City of Huntington Beach
Department of Community Development
714.536.5596 | jjames@surfcity-hb.org

From: vanessa martinez <rockonbaileybailey@yahoo.com>
Sent: Tuesday, October 22, 2019 3:20 PM
To: Planning Commission <planning.commission@surfcity-hb.org>
Subject: We are watching!

Planning Comission,

I'm here to advocate you vote for simple common sense by utilizing option C- DENY

1. Recommend to not certify Environmental Impact Report No. 17-001 as adequate and complete in accordance with CEQA requirements.

2. Recommend to not approve CEQA Findings of Fact with a Statement of Overriding Considerations.

3. Recommend denial of General Plan Amendment No. 17-001, Zoning Map Amendment No. 17-001, Zoning Text Amendment No. 17-005, Local Coastal Program Amendment No. 17-001, and Development Agreement No. 19-001.

Thank you,

Vanessa Martinez Hennerty!

Marlo Mole

From: Brian Zitt <info@magnoliatankfarm.com>
Sent: Monday, December 9, 2019 9:58 AM
To: jomalley@shopoff.com; MGregg@shopoff.com; info@MagnoliaTankfarm.com; marlo@nabermole.com
Subject: New Support Letter for Magnolia Tank Farm

Mayor Lyn Semeta & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Semeta:

I am writing to express my full support for the Magnolia Tank Farm Specific Plan. As a resident of this community, I look forward to the transformation of this blighted property from its former use as an oil storage facility to a vibrant new mixed-use neighborhood. The revitalization of this property will dramatically improve the aesthetics and value of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star lodge to the city's existing inventory will bolster the city's vital tourism industry. The proposed trails, parks and restaurants will serve both new and existing residents.

The development envisioned in the Tank Farm Specific Plan will also serve as an economic engine for the city. The project will bring needed tax revenues and jobs to the city. All of this economic activity being generated from a parcel of land that for the last fifty years has been an eyesore to the community while generating virtually no tax revenue.

In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,

Brian Zitt
8152 Kingfisher Drive

Ramos, Ricky

From: Outreach Team Magnolia Tank Farm <info@magnoliatankfarm.com>
Sent: Thursday, December 05, 2019 1:26 PM
To: Ramos, Ricky; CITY COUNCIL; info@magnoliatankfarm.com
Subject: New Support Letter for Magnolia Tank Farm

Marlo
Community Outreach
Magnolia Tank Farm
www.MagnoliaTankFarm.com
Sent from my iPhone

Begin forwarded message:

> **From:** Dane Aleksic <info@magnoliatankfarm.com>
> **Date:** December 5, 2019 at 10:31:11 AM PST
> **To:** info@magnoliatankfarm.com
>
> **Subject: New Support Letter for Magnolia Tank Farm**
>
> Dear Mayor Peterson,
>
> As a Huntington Beach resident, I want to express my support for the Magnolia Tank Farm project. This unique proposal provides a high-quality, boutique lodge with amenities for guests and locals, much-needed housing opportunities, and six acres of public open space, parks and coastal conservation.
>
> I look forward to meeting friends and family for coffee in the lodge before walking to the coastal conservation area to explore the wetlands, dining at the restaurant and bar, and taking in views of Magnolia Marsh with an ocean sunset as the backdrop. Most of all, I'm excited that I will be able to do ALL of this within my own community.
>
> I ask the Planning Commission and City Council to please stand with me in support of bringing homes and the lodge to the Magnolia Tank Farm in Huntington Beach.
>
> Sincerely,
>
> Dane Aleksic
> 15771 Hummingbird Ln

October 17, 2019

Planning Commission Members/Council Members

Re: Support for Proposed Magnolia Tank Farm

To Whom It May Concern-

I am a Southeast Huntington Beach resident and I am in support of the plans at the Magnolia Tank Farm.

We are excited about the prospects for the hotel and are grateful that we were asked to participate in a design group to discuss possible amenities at the hotel.

I hope that you will recommend approval of this project to the city council.

Sincerely,

George Flannery
9442 Harcourt Circle
Huntington Beach, CA

Marlo Mole

From: Hersel Zahab <info@magnoliatankfarm.com>
Sent: Monday, December 9, 2019 10:29 AM
To: jomalley@shopoff.com; MGregg@shopoff.com; info@MagnoliaTankfarm.com; marlo@nabermole.com
Subject: New Support Letter for Magnolia Tank Farm

Mayor Lyn Semeta & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Semeta:

I am writing to express my full support for the Magnolia Tank Farm Specific Plan. As a resident of this community, I look forward to the transformation of this blighted property from its former use as an oil storage facility to a vibrant new mixed-use neighborhood. The revitalization of this property will dramatically improve the aesthetics and value of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star lodge to the city's existing inventory will bolster the city's vital tourism industry. The proposed trails, parks and restaurants will serve both new and existing residents.

The development envisioned in the Tank Farm Specific Plan will also serve as an economic engine for the city. The project will bring needed tax revenues and jobs to the city. All of this economic activity being generated from a parcel of land that for the last fifty years has been an eyesore to the community while generating virtually no tax revenue.

In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,

Hersel Zahab
1520 Brookhollow Dr.

Ramos, Ricky

From: Magnolia Tank Farm Outreach Team <info@magnoliatankfarm.com>
Sent: Thursday, December 05, 2019 2:02 PM
To: CITY COUNCIL; Ramos, Ricky; Outreach Team Magnolia Tank Farm
Subject: Fwd: New Support Letter for Magnolia Tank Farm

Dear Mayor Peterson,

As a Huntington Beach resident, I want to express my support for the Magnolia Tank Farm project. This unique proposal provides a high-quality, boutique lodge with amenities for guests and locals, much-needed housing opportunities, and six acres of public open space, parks and coastal conservation.

I look forward to meeting friends and family for coffee in the lodge before walking to the coastal conservation area to explore the wetlands, dining at the restaurant and bar, and taking in views of Magnolia Marsh with an ocean sunset as the backdrop. Most of all, I'm excited that I will be able to do ALL of this within my own community.

I ask the Planning Commission and City Council to please stand with me in support of bringing homes and the lodge to the Magnolia Tank Farm in Huntington Beach.

Sincerely,

Ronald Davis
631 Frankfort Ave

--

_____
Marlo
Community Outreach Manager

Ramos, Ricky

From: Outreach Team Magnolia Tank Farm <info@magnoliatankfarm.com>
Sent: Thursday, December 05, 2019 1:28 PM
To: CITY COUNCIL
Cc: Ramos, Ricky
Subject: Fwd: New Support Letter for Magnolia Tank Farm

Marlo
Community Outreach
Magnolia Tank Farm
www.MagnoliaTankFarm.com
Sent from my iPhone

Begin forwarded message:

> **From:** Ryan C <info@magnoliatankfarm.com>
> **Date:** December 2, 2019 at 1:26:52 PM PST
> **To:** JOMalley@shopoff.com, MGregg@shopoff.com, "info@magnoliatankfarm.com" <info@magnoliatankfarm.com>, Marlo@nabermole.com
> **Subject: New Support Letter for Magnolia Tank Farm**
> **Reply-To:** ryan14@projobnetwork1.com
>
> Dear Mayor Peterson,
>
> As a Huntington Beach resident, I want to express my support for the Magnolia Tank Farm project. This unique proposal provides a high-quality, boutique lodge with amenities for guests and locals, much-needed housing opportunities, and six acres of public open space, parks and coastal conservation.
>
> I look forward to meeting friends and family for coffee in the lodge before walking to the coastal conservation area to explore the wetlands, dining at the restaurant and bar, and taking in views of Magnolia Marsh with an ocean sunset as the backdrop. Most of all, I'm excited that I will be able to do ALL of this within my own community.
>
> I ask the Planning Commission and City Council to please stand with me in support of bringing homes and the lodge to the Magnolia Tank Farm in Huntington Beach.
>
> Sincerely,
>
> Ryan C
> n/a

September 17, 2019

Planning Commission Members/Council Members

Re: Support for Proposed Magnolia Tank Farm

To Whom It May Concern-

As you know, there are limited dining options for those of us who live in Southeast Huntington Beach.

Since the Lodge and its' amenities will be open to the public, I would appreciate being able to take a walk on a Saturday morning to go to breakfast at the hotel restaurant instead of having to get in my car and drive downtown.

Taking advantage of opportunities to make Southeast Huntington Beach more walkable should be a priority of Huntington Beach.

I humbly ask that you consider approving this project.

Sincerely,

Suzie Flannery
9442 Harcourt Circle
Huntington Beach, CA

Ramos, Ricky

From: Wendy Bucknum <Wendy.Bucknum@associa.us>
Sent: Wednesday, November 13, 2019 12:59 PM
To: Ramos, Ricky
Subject: Magnolia Tank Farm

Dear Mayor Peterson:

I wanted to reach out to you in support of the plans as proposed for the Magnolia Tank Farm. Our team will be managing this association and not only do I believe redevelopment such as this is vital to our local economy, but we also see with communities that are well managed and cared for, an increase in property values and a community that will have little to no impact for the city relative to ongoing care.

I know you know there is a great need for additional housing opportunities in the city as well as the state of California. This area of Huntington Beach is also in need of local amenities for the community; the proposed Lodge will bring with it meeting space, outdoor activity and retail to the area.

Let me know if you have any questions at all. We are looking forward to bringing this project to fruition and serving the community.

Kind Regards,

Wendy Bucknum CMCA®, AMS®, PCAM®
Vice President of New Development Association Management

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Ask me about TownSq to Start Experiencing Community Your Way!

GIDEON KRACOV
Attorney at Law
801 South Grand Avenue
11th Floor
Los Angeles, California 90017

(213) 629-2071
Fax: (213) 623-7755

gk@gideonlaw.net
www.gideonlaw.net

February 27, 2020

VIA EMAIL:

Ricky Ramos, Senior Planner
c/o City of Huntington Beach City Council
2000 Main Street
Huntington Beach, CA 92648
rramos@surfcity-hb.org

Re: Unite Here Local 11 Comments on the Final Program Environmental Impact Report (SCH No. 2017101041) for the Magnolia Tank Farm Specific Plan

Dear Honorable Councilmembers:

On behalf of UNITE HERE Local 11 and its members (collectively "Local 11"), this Office provides the City of Huntington Beach ("City") the *attached expert air quality and greenhouse gas ("GHG") comments* (attached hereto as Attachment 1) regarding the Program Environmental Impact Report ("PEIR") prepared for the referenced Magnolia Tank Farm Specific Plan ("Specific Plan") for the 28.9-acre site at 21845 Magnolia Street ("Site"). The PEIR primarily analyzes two development scenarios under the Specific Plan: 1) a mixed-use development with 250 dwelling units, 19,000 square feet ("SF") of retail space, and a 211,000-SF hotel/guesthouse with 215 rooms (referred in the PEIR as the "Project"); and 2) the Project without the retail and hotel/guesthouse components (referred in the PEIR as "Alternative 1").

As described in detail in the attached expert letter, the PEIR makes fundamental flaws in its air quality and GHG impact analysis for both the Project and Alternative 1. Additionally, the PEIR demonstrates that the Project fails to incorporate feasible mitigation measures that *substantially lessen admittedly significant GHG impacts*, which precludes the City from approving the Project over Alternative 1 absent adequate overriding considerations supported by substantial evidence. So too, the PEIR fails to consider an adequate range of alternatives that would substantially lessen the Project's mobile-related GHG emissions.

Local 11 urges the City to stay all action on the Specific Plan and PEIR until a recirculated Draft PEIR is prepared in accordance with the California Environmental Quality Act ("CEQA") that cures the defects discussed in the attached expert letter, as well as consider a reasonable range of alternatives that substantially lessen the Project's significant GHG impacts—*such as Alternative 1 that incorporates local serving retail uses, campgrounds, or other non-hotel low-cost accommodations at the Site*.

Finally, on behalf of Local 11, this Office requests, to the extent not already on the notice list, all notices of CEQA actions and any approvals, Specific Plan/PEIR CEQA determinations, or public hearings to be held on the Specific Plan under state or local law requiring local agencies to mail such notices to any person who has filed a written request for them. *See* Pub. Res. Code §§ 21080.4, 21083.9, 21092, 21092.2, 21108, 21167(f) and Gov. Code § 65092. Please send notice by electronic and regular mail to: Jordan R. Sisson, Esq., 801 S. Grand Avenue, 11th Fl., Los Angeles, CA 90017, jordan@gideonlaw.net.

Thank you for your consideration of these comments. We ask that this letter and any attachments are placed in the administrative record for the Specific Plan.

Sincerely,

Jordan R. Sisson
Attorney for Local 11

Attachments:

1: SWAPE Letter (2/27/2020) Comments on the Magnolia Tank Farm Specific Plan Project

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

February 27, 2020

Ricky Ramos, Senior Planner
c/o City of Huntington Beach City Council
2000 Main Street
Huntington Beach, CA 92648

Subject: Comments on the Magnolia Tank Farm Specific Plan Project

Dear Honorable City Councilmembers,

We have reviewed the December 2018 Draft Program Environmental Impact Report ("DEIR") and 2019 Response to Comments ("RTC") for the Magnolia Tank Farm Specific Plan located in the City of Huntington Beach ("City"). The DEIR analyses the proposed construction of a 211,000 square foot ("SF") lodge with 175 guest rooms and a guesthouse with 40 rooms, 19,000-SF of retail space, and 250 dwelling units on the 28.9-acre site (referred in the DEIR as the "Project"). Additionally, the DEIR analyses the Project without the lodge, guest house, and retail components and would construct 250 residential units on the 28.9-acre site (referred in the DEIR as "Alternative 1").

Our review concludes that the EIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas ("GHG") impacts as required under the California Environmental Quality Act ("CEQA") and 14 Cal. Code Regs. § 15000 *et seq.* ("CEQA Guidelines"). As a result, emissions and health risk impacts associated with the construction/operation of the proposed Project and Alternative 1 are underestimated and inadequately addressed. An updated DEIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and GHG impacts the Project and Alternative 1 may have on the surrounding environment.

For your convenience, a summary of contents is provided on the following page, followed by SWAPE's detailed explanation of the various flaws with the EIR's air quality, health risk, GHG impact, and mitigation analysis.[1]

[1] Page citations contained herein are to either the page's stated pagination (referenced herein as "p. ##"), or to the page's location in the referenced PDF document (referenced herein as "pp. ##").

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1. Air Quality

1.1 Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod").[2] CalEEMod provides recommended default values based on site specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence.[3] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant and GHG emissions and make known which default values were changed as well as provide a justification for the values selected.[4]

When we reviewed the Project's CalEEMod output files, provided as Appendix C to the DEIR, we found that several of the values inputted into the model are not consistent with information disclosed in the DEIR. As a result, emissions associated with the Project are underestimated. An updated DEIR should be prepared that adequately assesses the potential impacts that construction and operation of the proposed Project may have on regional and local air quality.

1.1.1 Failure to Model Total Amount of Parking

Review of the Project's CalEEMod output files demonstrates that the model fails to include the Project and Alternative 1's total required number of parking spaces. As a result, both the Project and Alternative 1's construction and operational emissions are underestimated, and the model should not be relied upon to determine Project significance.

In regards to parking requirements, the DEIR states,

> "Parking within PA 3 would comply with Chapter 231 of the HBZSO with the following differences and additional requirements:
>
> - Detached cluster homes shall comply with the multi-family parking requirements.
> - Small-lot homes shall comply with the single-family residential parking requirements.
> - A tandem parking configuration may be provided for both garage and driveway required parking for individual residential units (maximum total two parking spaces deep).
> - Uncovered parking spaces for residential uses shall be located in parking bays within 200 feet of the unit served and in driveways with the minimum required depth.

[2] CAPCOA (November 2017) CalEEMod Website, http://www.caleemod.com/.
[3] CAPCOA (November 2017) CalEEMod User's Guide, p. 2, 9, http://www.caleemod.com/.
[4] *Ibid*., p. 7, 13 (A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.)

- If any of the proposed housing units are designated for seniors, they are to comply with senior parking requirements as stated in the HBZSO Off-Street Parking Space Requirements" (p. 3-12).

Thus, in accordance with the Project's compliance with the HBZSO, we utilized Chapter 231 of the HBZSO to estimate the number of parking spaces to be developed with the Project and Alternative 1. According to the HBZSO, single-family dwellings require 2 enclosed and 2 open parking spaces per dwelling with 0-4 bedrooms, 1 parking space per 200 square feet of retail or eating and drinking establishment land use, and 1.1 parking spaces per guest room for hotels and motels, which we applied to the lodge/guest-house land use.[5] As such, we estimate that the Project will require approximately 1,332 parking spaces.[6] Furthermore, we estimate that Alternative 1 will require approximately 1,000 parking spaces.[7] When inputted into CalEEMod, 1,332 parking spaces results in a default square footage value of 532,800 square feet and 1,000 parking spaces results in a default square footage value of 400,000 square feet. However, review of the Project's CalEEMod output files demonstrates that the model only included a 143,748 square foot parking lot for both the Project and Alternative 1 (Appendix C, pp. 1, 31, 61, 99, 137, 173, 219, 248, 277, 310, 339, 368). As the DEIR failed to indicate the square footage of the Project and Alternative 1's parking land use, this land use size is unsubstantiated. Thus, we assume that the DEIR's CalEEMod model underestimates this land uses by approximately 389,052 square feet for the Project and 256,252 square feet for Alternative 1. The land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations.[8] For example, the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings), volume that is heated or cooled, electricity usage from lighting, ventilation (i.e., energy impacts), parking lot degreasers, and cleaning supplies. Furthermore, CalEEMod assigns each land use type with its own set of energy usage emission factors.[9] As a result, the model may underestimate emissions and should not be relied upon to determine significance for the Project and Alternative 1.

1.1.2 Unsubstantiated Reductions in Operational Energy Use

Review of the CalEEMod output files demonstrates that the Title-24 Electricity Energy Intensity, Nontitle-24 Electricity Energy Intensity, and Lighting Energy Intensity values were each manually reduced to zero without sufficient justification. As a result, the operational emissions may be underestimated and the model should not be relied upon to determine significance for the Project and Alternative 1.

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[5] Huntington Beach Municipal Code ("HBMC") § 231.04 Off-Street Parking and Loading Spaces Required, https://www.qcode.us/codes/huntingtonbeach/view.php?topic=zoning_code-23-231-231_04&frames=on.

[6] Parking Spaces = (250 single-family dwellings x 4 parking spaces (2 enclosed and 2 open)) + (19,000 square feet of retail and dining ÷ 200 square feet) + (215 lodge/guest-house rooms x 1.1 parking space per guest room) = (1,000) + (95) + (237) = 1,332 total parking spaces.

[7] Parking Spaces = (250 single-family dwellings x 4 parking spaces (2 enclosed and 2 open)) = 1,000 parking spaces

[8] CAPCOA, *supra* fn. 3, p. 17, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

[9] CAPCOA (Sep. 2016) CalEEMod User's Guide, Appendix D, p. 5, http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2.

According to the CalEEMod output files, the Title-24 Electricity Energy Intensity, Nontitle-24 Electricity Energy Intensity, and Lighting Energy Intensity values were artificially reduced from 253.73, 6,155.97, and 1,608.84 to zero, respectively (see excerpt below) (Appendix C, pp. 63, 101, 139, 312, 341, 370).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	T24E	253.73	0.00

As the above excerpt demonstrates, the Title-24 Electricity Energy Intensity, Nontitle-24 Electricity Energy Intensity, and Lighting Energy Intensity values were manually reduced to zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[10] According to the "User Entered Comments & Non-Default Data" table of the CalEEMod output files, these changes were based on "2019 Title 24 Standards" (Appendix C, pp. 62, 100, 138, 311, 340, 369). Furthermore, the DEIR states that "[b]ased on CalEEMod, the electricity demand from the proposed Project would be met through onsite electricity generation, which would effectively result in 0 kilowatt hours per year (kWh/year)" (p. 6-10). However, this justification fails to substantiate the changes, as the DEIR fails to prove that onsite electricity generation would actually meet energy demand for the Project and Alternative 1. While Mitigation Measure MM GHG-1 in the DEIR states that "50 percent of the roof space (approximately 3,000 square feet) would be used for the installation of solar photovoltaic panels," the DEIR fails to quantify how much energy would actually be produced and how it would compare to the Project's anticipated energy demand (p. 4.6-35). Just because the Project would generate electricity onsite does not demonstrate that the onsite electricity generation would completely offset the Project's estimated energy demand. Furthermore, the Title 24 Standards state that "[a]ll low-rise residential buildings shall have a photovoltaic (PV) system meeting the minimum qualification requirements as specified in Joint Appendix JA11, with annual electrical output equal to or greater than the dwelling's annual electrical usage" (emphasis added). [11] Thus, while the Title-24 Standards require residential buildings to include energy generation equal to demand, the standards fail to indicate these requirements for other land uses. As such, the DEIR's application of this energy production to all land uses of the proposed Project is incorrect, as it only applies to the single-family residences and not the Projects other land uses, including hotel, city park, parking lot, and regional shopping center. As a result, the DEIR should not have reduced the operational energy use values for these land uses to zero. As such, the DEIR's CalEEMod model may underestimate emissions and should not be relied upon to determine significance for the Project or Alternative 1.

[10] CAPCOA, *supra* fn. 3, p. 2, 9

[11] California Energy Commission ("CEC") (Dec. 2018) 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, p. 284 https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf.

1.1.3 Double Count Pass-by Trips

Review of the Project's CalEEMod output files demonstrate that the model double counts the pass-by trip reduction expected to occur throughout Project operation. As a result, the model underestimates the Project's operational emissions.

Review of the CalEEMod output files demonstrates that the model separates the operational trip purposes into three categories: primary, diverted, and pass-by trips. According to Appendix A of the CalEEMod User's Guide, the primary trips utilize the complete trip lengths associated with each trip type category. Diverted trips are assumed to take a slightly different path than a primary trip and are assumed to be 25% of the primary trip lengths. Pass-by trips are assumed to be 0.1 miles in length and are a result of no diversion from the primary route.[12] Thus, pass-by-trips result in a significant reduction in emissions when compared to primary and diverted trips. Review of the Traffic Impact Analysis (TIA), provided as Appendix J to the DEIR, demonstrates that the TIA already included a pass-by-trip reduction when calculating the proposed Project's trip generation (see excerpt below) (Appendix J, p. 18).

TABLE 5-1
PROJECT TRAFFIC GENERATION FORECAST[4]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Rates:							
▪ 210: Single-Family Detached Housing (TE/DU)	9.44	25%	75%	0.74	63%	37%	0.99
▪ 310: Hotel (TE/Room)	8.36	59%	41%	0.47	51%	49%	0.60
▪ 415: Beach Park (TE/Acre)[5]	29.81	--	--	--	29%	71%	1.30
▪ 820: Shopping Center (TE/TSF)[6]	102.29	62%	38%	8.47	48%	52%	8.37
Proposed Project Generation Forecasts:							
▪ Hotel (215 Rooms)	1,797	60	41	101	66	63	129
Internal Capture Trip Reduction[7]	-69	0	-2	-2	-5	-1	-6
Hotel Total	*1,728*	*60*	*39*	*99*	*61*	*62*	*123*
▪ Retail (19,000 SF)	1,943	100	61	161	76	83	159
Internal Capture Trip Reduction[7]	-209	-3	-1	-4	-5	-13	-18
Retail Subtotal	*1,734*	*97*	*60*	*157*	*71*	*70*	*141*
Pass-by (Daily 10%, AM 10%, PM 10%)	-173	-10	-6	-16	-7	-7	-14
Retail Total	*1,561*	*87*	*54*	*141*	*64*	*63*	*127*
▪ Residential (250 DU)	2,360	46	139	185	156	92	248
Internal Capture Trip Reduction[7]	-210	-1	-1	-2	-11	-7	-18
Residential Total	*2,150*	*45*	*138*	*183*	*145*	*85*	*230*
▪ Open Space (2.9 Acres)	87	0	0	0	1	3	4
Total Project Trip Generation	*5,526*	*192*	*231*	*423*	*271*	*213*	*484*

Notes:
- TE/DU = trip end per dwelling unit
- TE/TSF = trip end per thousand square feet

As you can see in the excerpt above, the TIA already included a reduction for the pass-by trips anticipated by the Project. However, review of the Project's CalEEMod output files demonstrates that the model also accounted for the pass-by trip reduction, thus implementing this reduction for a second time (see excerpt below) (Appendix C, pp. 130, 163, 205).

[12] CAPCOA (Jul. 2013) CalEEMod User's Guide, Appendix A, p. 20, http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixa.pdf?sfvrsn=2.

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

As you can see in the excerpt above, the CalEEMod model divided the trip purpose between primary, diverted, and pass-by for the retail land use, even though pass-by trips were already accounted for in the TIA. By spreading the trip purpose percentages amongst the three categories, the model is accounting for pass-by trips that have already been accounted for in the TIA. Because the proposed Project's CalEEMod model incorrectly allocates some of the Project's operational trips as pass-by trips, the emissions associated with these trips are underestimated. As a result, the Project's mobile-source operational emissions are underestimated. An updated CalEEMod model should be prepared in order to accurately estimate the Project's operational emissions.

1.1.4 Use of Underestimated Trip Rates

Review of the Project's CalEEMod output files demonstrates that the trip rates for the proposed Project were manually reduced without justification. As a result, the Project's operational emissions may be underestimated.

According to Table 5-1 in the TIA, the proposed Project is estimated to generate 5,526 trips daily (see excerpt below) (DEIR, Appendix J, Table 5-1, p. 18).

TABLE 5-1
PROJECT TRAFFIC GENERATION FORECAST[4]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Rates:							
▪ 210: Single-Family Detached Housing (TE/DU)	9.44	25%	75%	0.74	63%	37%	0.99
▪ 310: Hotel (TE/Room)	8.36	59%	41%	0.47	51%	49%	0.60
▪ 415: Beach Park (TE/Acre)[5]	29.81	--	--	--	29%	71%	1.30
▪ 820: Shopping Center (TE/TSF)[6]	102.29	62%	38%	8.47	48%	52%	8.37
Proposed Project Generation Forecasts:							
▪ Hotel (215 Rooms)	1,797	60	41	101	66	63	129
Internal Capture Trip Reduction[7]	-69	0	-2	-2	-5	-1	-6
Hotel Total	*1,728*	*60*	*39*	*99*	*61*	*62*	*123*
▪ Retail (19,000 SF)	1,943	100	61	161	76	83	159
Internal Capture Trip Reduction[7]	-209	-3	-1	-4	-5	-13	-18
Retail Subtotal	*1,734*	*97*	*60*	*157*	*71*	*70*	*141*
Pass-by (Daily 10%, AM 10%, PM 10%)	-173	-10	-6	-16	-7	-7	-14
Retail Total	*1,561*	*87*	*54*	*141*	*64*	*63*	*127*
▪ Residential (250 DU)	2,360	46	139	185	156	92	248
Internal Capture Trip Reduction[7]	-210	-1	-1	-2	-11	-7	-18
Residential Total	*2,150*	*45*	*138*	*183*	*145*	*85*	*230*
▪ Open Space (2.9 Acres)	87	0	0	0	1	3	4
Total Project Trip Generation	*5,526*	*192*	*231*	*423*	*271*	*213*	*484*

Notes:
- TE/DU = trip end per dwelling unit
- TE/TSF = trip end per thousand square feet

As you can see in the excerpt above, the TIA indicates a total daily trip number of 5,526 for the proposed Project. However, review of the Project's CalEEMod output files reveal that an incorrect number of total daily trips were calculated for Weekday and Sunday, respectively (see excerpt below) (DEIR, Appendix C, pp. 130, 163, 205).

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	80.91	68.25	50.22	215,002	215,002
Hotel	1,728.60	1,732.90	1257.75	3,965,697	3,965,697
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,561.04	1,826.85	922.64	3,261,164	3,261,164
Single Family Housing	2,150.00	2,237.50	1947.50	7,290,738	7,290,738
Total	5,520.55	5,865.50	4,178.11	14,732,600	14,732,600

As you can see in the excerpt above, the number of total daily trips calculated for Weekday and Sunday were underestimated by 5 and 1,348 daily trips, respectively. According to the "User Entered Comments & Non-Default Data" table in the CalEEMod output files, the justification for the altered trip rates utilized in the model is: "Based on TIA" (DEIR, Appendix C, pp. 100, 138, 174). However, as previously stated, the TIA only indicated a daily trip total of 5,526. Thus, the Weekday and Sunday trip rates are underestimated within the model and as a result, the model's mobile-source operational emissions should not be relied upon to determine Project significance.

Furthermore, the TIA indicates a total daily trip number of 2,237 for Alternative 1, the sum of 2,150 trips estimated for the Residential land use and 87 trips estimated for the Open Space land use (Appendix J, Table 5-1, p. 18). However, review of the Project's CalEEMod output files reveals that an incorrect number of daily trips were calculated for Sunday (see excerpt below) (DEIR, Appendix C, pp. 333, 362, 392).

4.2 Trip Summary Information

	Average Daily Trip Rate		
Land Use	Weekday	Saturday	Sunday
City Park	80.91	68.25	50.22
Parking Lot	0.00	0.00	0.00
Single Family Housing	2,360.00	2,457.50	2137.50
Total	2,440.91	2,525.75	2,187.72

As you can see in the excerpt above, the number of total daily trips calculated for Sunday were underestimated by approximately 49 trips. According to the "User Entered Comments & Non-Default Data" table in the CalEEMod output files, the justification for the altered trip rates utilized in the model is: "Based on TIA" (Appendix C, pp. 311, 340, 369). However, as previously stated, the TIA only indicated a daily trip total of 2,237. Thus, the Sunday trip rate is underestimated within the model and as a result, the model's mobile-source operational emissions should not be relied upon to determine Alternative 1 significance.

1.1.5 Unsubstantiated Changes to Fleet Mix

The fleet mix values used to estimate the proposed Project and Alternative 1's mobile-source operational emissions were changed from the CalEEMod default values without proper justification. As a result, the Project's operational emissions may be underestimated.

According to the CalEEMod output files, the following fleet mix values were used to estimate operational emissions (see excerpt below) (DEIR, Appendix C, pp. 3-5, 33-35, 63-65, 101-103, 139-141, 175-177, 221-222, 250-251, 279-280, 312-313, 341-342, 370-371).

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.01
tblFleetMix	HHD	0.02	1.2250e-003
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.85
tblFleetMix	LDA	0.57	0.82
tblFleetMix	LDA	0.57	0.92
tblFleetMix	LDA	0.57	0.89
tblFleetMix	LDT1	0.04	0.01
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.03
tblFleetMix	LDT2	0.21	0.08
tblFleetMix	LDT2	0.21	0.01
tblFleetMix	LDT2	0.21	0.04
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	5.4800e-003
tblFleetMix	LHD1	0.01	1.2250e-003
tblFleetMix	LHD1	0.01	1.1930e-003
tblFleetMix	LHD2	5.7660e-003	0.00
tblFleetMix	LHD2	5.7660e-003	5.4800e-003
tblFleetMix	LHD2	5.7660e-003	0.00
tblFleetMix	LHD2	5.7660e-003	1.1930e-003
tblFleetMix	MCY	4.9770e-003	5.3000e-003
tblFleetMix	MCY	4.9770e-003	0.01
tblFleetMix	MCY	4.9770e-003	6.0960e-003
tblFleetMix	MCY	4.9770e-003	1.1930e-003
tblFleetMix	MDV	0.11	0.06
tblFleetMix	MDV	0.11	0.01
tblFleetMix	MDV	0.11	6.1240e-003
tblFleetMix	MDV	0.11	0.01
tblFleetMix	MH	8.3600e-004	8.9000e-004
tblFleetMix	MH	8.3600e-004	9.1600e-004
tblFleetMix	MH	8.3600e-004	1.0240e-003

tblFleetMix	MH	8.3600e-004	9.9700e-004
tblFleetMix	MHD	0.03	0.00
tblFleetMix	MHD	0.03	5.4800e-003
tblFleetMix	MHD	0.03	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.8250e-003	1.9430e-003
tblFleetMix	OBUS	1.8250e-003	2.0000e-003
tblFleetMix	OBUS	1.8250e-003	1.2250e-003
tblFleetMix	OBUS	1.8250e-003	2.1770e-003
tblFleetMix	SBUS	6.1100e-004	0.03
tblFleetMix	SBUS	6.1100e-004	6.7000e-004
tblFleetMix	SBUS	6.1100e-004	0.00
tblFleetMix	SBUS	6.1100e-004	0.00
tblFleetMix	UBUS	1.4730e-003	1.5690e-003
tblFleetMix	UBUS	1.4730e-003	1.6140e-003
tblFleetMix	UBUS	1.4730e-003	0.00
tblFleetMix	UBUS	1.4730e-003	0.00

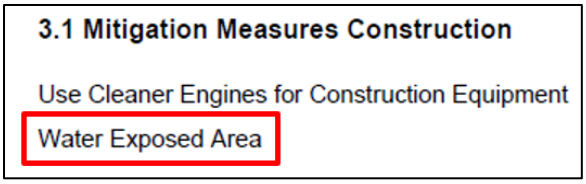
As you can see in the excerpt above, the CalEEMod models include numerous manual changes to the vehicle fleet mix. Generally, the fleet mix percentages of lesser emitting vehicle types were increased (e.g., passenger cars ["LDA"], lighter light-duty trucks ["LDT1"]), and the fleet mix percentages of greater emitting vehicle types were decreased (e.g., heavier light-duty trucks ["LDT2"], 6,000-8,500 lbs. gross vehicle weight ["MDV"], light-heavy-duty trucks ["LHD1" and "LHD2"], medium-heavy-duty trucks ["MHD"], heavy-heavy-duty trucks ["HHD"]).[13] As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[14] However, the DEIR and associated appendices fail to mention this change. Nor does the "User Entered Comments & Non-Default Data" table in CalEEMod substantiate or address this change. This is incorrect, as the TIA fails to mention or justify any changes to the vehicle fleet mix. Thus, we cannot verify the altered fleet mix percentage values, and the model may underestimate mobile-source operational emissions.

1.1.6 Unsubstantiated Application of Construction Mitigation Measure

Review of the CalEEMod output files demonstrates that the model includes an unsubstantiated construction mitigation measure. As a result, the model may underestimate the Project and Alternative 1's construction-related emissions.

Review of the CalEEMod output files reveals that the models include the "Water Exposed Area" construction mitigation measure (see excerpt below) (DEIR, Appendix C, pp. 73, 111, 147, 317, 346, 376).

[13] CARB (12/22/17) EMFAC2017 VI.0.I User's Guide, Appendix 4: Vehicle Categories, p. 77 (describing vehicle categories), https://ww3.arb.ca.gov/msei/downloads/emfac2017_users_guide_final.pdf.
[14] CAPCOA, *supra* fn. 3, p. 2, 9.

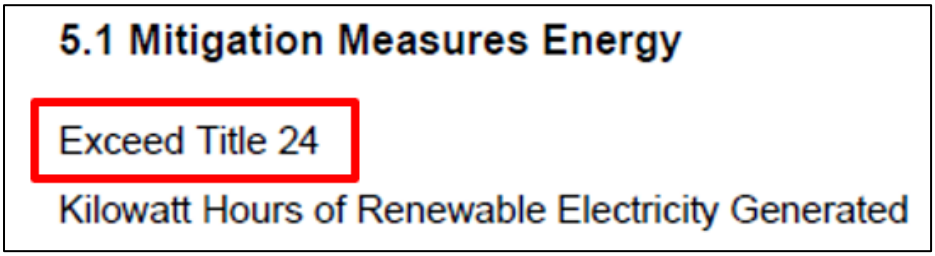


As you can see in the excerpt above, the model included the construction mitigation measure "Water Exposed Area." As previously stated, the CalEEMod User Guide requires that any non-default values inputted must be justified.[15] However, the "User Entered Comments & Non-Default Data" table of the CalEEMod output files fails to address this change. Furthermore, according to the DEIR, regulatory requirement RR AQ-1 states that the Project will comply with South Coast Air Quality Management District ("SCAQMD") Rule 403 (p. 4.2-42). However, while this rule does address fugitive dust, it merely states that control measures "*may* include the use of water controls" (emphasis added) (p. 4.2-42). As such, Rule 403 does not require the implementation of this specific mitigation measure and, as the DEIR fails to actually demonstrate a commitment to implementing and enforcing the measure, we are unable to verify its use in the model. Thus, this mitigation measure is unsubstantiated and the model should not be relied upon to determine significance for the Project or Alternative 1.

1.1.7 Unsubstantiated Application of Energy Mitigation Measure

Review of the Project's CalEEMod output files demonstrates that an energy-related mitigation measure was included in the model without proper justification.

The Project's CalEEMod output files demonstrate that the "Exceed Title 24" mitigation measure was included in the model (see excerpt below) (DEIR, Appendix C, pp. 93, 131, 163, 206).



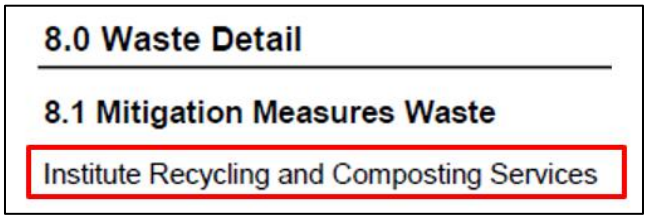
As you can see in the excerpt above, the model assumes the Project will exceed Title 24 standards. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[16] However, according to RR GHG-1 in the DEIR, "[t]he Project shall be designed in accordance with the applicable Title 24 Energy Efficiency standards" (p. 4.6-34). Thus, the DEIR states that the proposed Project will *comply with* Title 24 standards, not *exceed* them. As such, the use of this mitigation measure is unsubstantiated and incorrect. Thus, an updated DEIR should be prepared to quantify how much electricity will be generated and provide actual logistics for its implementation.

[15] CAPCOA, *supra* fn. 3, p. 7, 13, (A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report).
[16] *Ibid*., p. 2, 9.

1.1.8 Unsubstantiated Application of Waste-Related Mitigation Measure

Review of the Project's CalEEMod output files demonstrates that the model included a waste-related mitigation measure without sufficient justification. As a result, the Project's operational emissions may be underestimated.

The CalEEMod output files reveal that the "Institute Recycling and Composting Services" mitigation measure was included in the model (see excerpt below) (DEIR, Appendix C, pp. 97, 135, 169, 215).



As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[17] However, the DEIR's only justification is Regulatory Requirement RR GHG-3 which states that "the hotel shall develop a solid waste recycling program that is consistent with the goals established by Assembly Bill 323" (p. 4.6-35). However, the model incorrectly applies this mitigation measure to the entire Project, not just the hotel. This is incorrect, as Assembly Bill 323 requires "a business, which is defined as a commercial or public entity, that generates more than 4 cubic yards of commercial solid waste per week or is a multifamily residential dwelling of 5 units or more, to arrange for recycling services."[18] As such, AB 323 would only apply to the hotel land use, as indicated by the DEIR, and should not have been applied to the model for the entire Project, which includes single-family residences and does not have any specific requirements for the Project, but rather for the city, county, and regional agency instead. Furthermore, the Project fails to provide any specifics regarding what its solid waste recycling program will include, how it will be enforced, and the quantity of waste diverted. As such, this mitigation measure is unsubstantiated and the model may underestimate emissions.

1.2 Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The DEIR concludes that the proposed Project and Alternative 1 would have a less than significant impact on the health of sensitive receptors near the Project site without conducting a quantitative health risk assessment ("HRA") for construction and operation. In an attempt to justify the omission of a construction HRA, the DEIR states,

> "The project site is 28.9 acres in size, and the average distance from the center of the project site to the nearest offsite sensitive receptor is approximately 600 feet. As such, this large distance between emission sources and sensitive receptors allows for substantial air pollutant dispersion of emissions generated by roving construction equipment. Because exposure to diesel exhaust from construction of the proposed Project or Alternative 1 would be well below

[17] CAPCOA, *supra* fn. 3, p. 2, 9.
[18] Assembly Bill No. 323, 2013-2014 Reg. Sess., (Legislative Counsel's Digest number 2), http://www.leginfo.ca.gov/pub/13-14/bill/asm/ab_0301-0350/ab_323_bill_20130212_introduced.html.

> the 30- or 70-year exposure period, construction of the proposed Project or Alternative 1 is not anticipated to result in an elevated cancer risk to exposed persons. As such, project-related toxic emission impacts during construction would not be significant and no mitigation is required." (p. 4.2-39).

Furthermore, in an attempt to justify the omission of an operational HRA, the DEIR states,

> "As discussed previously, the MATES IV Study indicates that health risks at the project site are less than the basin-wide average. Those health risks were based on previous AES Generating Facility, and the new facility is anticipated to result in less air pollutant emissions. As such, the TAC impact to future residents and employees of the proposed Project or Alternative 1 and to off-site receptors would be less than significant. No mitigation is required" (p. 4.2-40 – 4.2-41).

Finally, the Supplemental Air Quality Memo, provided as Attachment D to the Response to Comments ("RTC") states,

> "The PEIR evaluated the Project's localized impact to air quality for emissions of CO, NOx, PM10, and PM2.5 by comparing the Project's on-site emissions to the SCAQMD's applicable LST thresholds (see pages 4.2-29 and 4.2-30 of the PEIR). As evaluated in the PEIR, the Project would not result in emissions that exceeded the SCAQMD's LSTs" (RTC, Attachment D, p. 11).

However, these justifications and less than significant impact finding are incorrect for several reasons.

First, according to the DEIR, "[t]he nearest sensitive receptors to the proposed project site are single-family homes east of the project site, east of Magnolia Street, approximately 100 feet from the project's eastern boundary" (p. 4.2-13). According to the South Coast Air Quality Management District (SCAQMD), in order to perform an HRA, "it is necessary to identify the nearest sensitive receptor location."[19] Similarly, OEHHA guidance recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the ***maximally exposed*** individual resident ("MEIR").[20] As such, the DEIR's use of the average 600 feet to analyze health risk is incorrect and does not represent the most health protective analysis, as is required by CEQA.

Second, the DEIR identifies a sensitive receptor located approximately 100 feet, or roughly 30 meters from the Project site, and thus, the DEIR's justification that "this large distance between emission sources and sensitive receptors allows for substantial air pollutant dispersion of emissions" is incorrect. 30 meters is not a "large distance," nor is this claim sufficient to justify the omission of a quantified HRA. Similarly, the justifications that Project construction is short term and the MATES IV study indicates that the health risks are less than the basin-wide average do not justify the omission of a quantified HRA. Rather, the omission of a quantified HRA is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing

[19] SCAQMD (Aug. 2017) Risk Assessment Procedures for Rules 1401, 1401.1 and 212, p. 11, http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf.
[20] OEHHA (Feb. 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, p. 8-6, 8-15, http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

guidance on conducting HRAs in California. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.[21] This guidance document describes the types of projects that warrant the preparation of an HRA. Construction of the Project will produce emissions of DPM, a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 5 years (Appendix C, pp. 8). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[22] Therefore, per OEHHA guidelines, health risk impacts from Project construction and operation should have been evaluated by the DEIR. Furthermore, once construction of the Project is complete, the Project will operate for a long period of time. According to the Traffic Impact Analysis (TIA), provided as Appendix J to the DEIR, Project operation would generate approximately 5,526 daily vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (Appendix C, pp. 26). The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR).[23] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, health risks from Project operation should have also been evaluated by the DEIR, as a 30-year exposure duration vastly exceeds the 2-month and 6-month requirements set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, an updated assessment of health risks to nearby sensitive receptors from construction and operation of the proposed Project and Alternative 1 should be included in a revised CEQA evaluation for the Project.

Third, by claiming a less than significant impact without conducting quantified HRAs to nearby, existing sensitive receptors as a result of construction and operation of the proposed Project and Alternative 1, the DEIR fails to compare the excess health risk to the SCAQMD's specific numeric threshold of 10 in one million.[24] This is incorrect, as SCAQMD guidance indicates that the maximum incremental cancer risk resulting from TACs should be compared to this threshold.

Finally, the Supplemental Air Quality Memo's use of an LST analysis is incorrect. By failing to prepare a quantitative HRA in addition to the LST analysis, the DEIR fails to provide a comprehensive analysis of the sensitive receptor impacts that may occur as a result of exposure to substantial air pollutant emissions. Seeing as construction is expected to occur over an approximately five-year period, it is reasonable to assume that a significant amount of diesel particulate matter (DPM), a known human carcinogen, will be emitted from the exhaust stacks of equipment required for Project construction. Similarly, the DEIR's Traffic Impact Analysis determines that operational activities will include approximately 5,526 daily vehicle trips, thus generating diesel exhaust over the duration of Project

[21] *Ibid*.
[22] *Ibid*., p. 8-18.
[23] *Ibid*., p. 8-6, 8-15.
[24] SCAQMD (Apr. 2019) Air Quality Significance Thresholds, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

operation (Appendix J, p. 18, Table 5-1). As such, the DEIR should have conducted a quantified construction and operational health risk assessment, as long-term exposure to DPM and other TACs may result in a significant health risk impact that therefore, must be properly assessed.

1.3 Screening-Level Assessment Indicates Significant Impact

In an effort to demonstrate the potential risk posed by Project and Alternative 1 construction and operation to nearby sensitive receptors, we prepared two simple screening-level HRAs utilizing SWAPE's AERSCREEN and CalEEMod modeling for the Project (attached hereto as Exhibit A and B, respectively) and Alternative 1 (attached hereto as Exhibit C and D, respectively). The results of our assessment, as described below, provide substantial evidence that the Project and Alternative 1's construction and operational DPM emissions may result in a potentially significant health risk impact not previously identified by the DEIR.

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening level air quality dispersion model. [25] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[26] and the California Air Pollution Control Officers Associated ("CAPCOA")[27] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project or Alternative 1.

We prepared a preliminary HRA of the construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the SWAPE annual CalEEMod output files. According to the DEIR, the closest sensitive receptor is a residence approximately 100 meters, or 30 meters, east of the Project site (p. 4.2-13). Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The Project's construction CalEEMod output files indicate that construction activities will generate approximately 575 pounds of diesel particulate matter (DPM) over the 1,825-day construction period. In addition, Alternative 1's CalEEMod output files indicate that construction activities will generate approximately 571 pounds of DPM over the 1,825-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{574.6\ lbs}{1{,}825\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.001653\ g/s}$$

[25] USEPA (Apr. 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf.
[26] OEHHA, *supra* fn. 20.
[27] CAPCOA (Jul. 2019) Health Risk Assessments for Proposed Land Use Projects, pp. 42-44, 104, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

Furthermore, to account for the variability in equipment usage and truck trips over construction of Alternative 1, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{571.4\ lbs}{1{,}825\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.001644\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.001653 grams per second (g/s) for the proposed Project and a construction emission rate of 0.001644 g/s for Alternative 1. Subtracting the 1,825-day construction duration from the total residential duration of 30 years, we assumed that after construction, the MEIR would be exposed to operational DPM for an additional 25 years, approximately. The Project's operational CalEEMod emissions indicate that operational activities will generate approximately 228 pounds of DPM per year throughout operation and Alternative 1 operational activities will generate approximately 135 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{228.2\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.003282\ g/s}$$

Finally, we used the same equation to estimate the following emission rate for Alternative 1 operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{135\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.001942\ g/s}$$

Using these equations, we estimated an operational emission rate of 0.003282 g/s for the proposed Project and an operational emission rate of 0.001942 g/s for Alternative 1. Construction and operational activity were simulated as a 28.9-acre rectangular area source in AERSCREEN with dimensions of 351.5 meters by 333 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[28] AS previously stated, the closest residential sensitive receptors are located approximately 30 meters from the Project site. However, the maximally exposed receptor, according to AERSCREEN, is located 225 meters from the Project site. The single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.6667 µg/m^3 DPM at approximately 225 meters downwind and the single-hour concentration estimated by AERSCREEN for Alternative 1 construction is approximately 0.6634 µg/m^3 DPM at approximately 225 meters downwind. Multiplying these single-hour

[28] USEPA (1992) Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* OEHHA, *supra* fn. 20, p. 4-36.

concentrations by 10%, we get annualized average concentrations of 0.06667 µg/m^3 for Project construction and 0.06634 µg/m^3 for Alternative 1 construction at approximately 225 meters downwind. The single-hour concentration estimated by AERSCREEN is approximately 1.324 µg/m^3 for Project operation and 0.7833 µg/m^3 for Alternative 1 operation at approximately 225 meters downwind. Multiplying theses single- hour concentrations by 10%, we get annualized average concentrations of 0.1324 µg/m^3 for Project operation and 0.07833 µg/m^3 for Alternative 1 operation at the maximally exposed sensitive receptor, approximately 225 meters downwind.

We calculated the excess cancer risk to the maximally exposed residential receptors using applicable HRA methodologies prescribed by OEHHA and the SCAQMD. Consistent with the construction schedule proposed by the DEIR, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years), entire infantile stage of life (0 – 2 years), and first 2.75 years of the child stage of life (2 – 16 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the child stages of life (2 – 16 years) and adult stages of life (16 – 30 years). Consistent with the most recent OEHHA guidance, as cited by the DEIR, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution (p. 4.2-23). According to this guidance, quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years).[29] Furthermore, in accordance with guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.[30] Finally, according to SCAQMD guidance, we used a Fraction of Time At Home (FAH) value of 1 for the 3rd trimester, infant, and child receptors, and a value of 0.73 for the adult receptors.[31] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. Consistent with OEHHA guidance, exposure to the sensitive receptor was assumed to begin in the third trimester to provide the most conservative estimate of air quality hazards. The results of our calculations are shown below.

[29] OEHHA, *supra* fn. 20, p. 8-5.
[30] OEHHA, *supra* fn. 20; *see also* SCAQMD (Jun. 2015) Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act, p. 19, http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6.
[31] SCAQMD (Oct. 2017) Permit Application Package "N" For Use in Conjunction with the Risk Assessment Procedures for Rules 1401, 1401.1, and 212, p. 15, http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf?sfvrsn=4.

The Maximally Exposed Individual at an Existing Residential Receptor - Project					
Activity	**Duration (years)**	**Concentration (ug/m3)**	**Breathing Rate (L/kg-day)**	**ASF**	**Cancer Risk**
Construction	0.25	0.06667	361	10	9.1E-07
3rd Trimester Duration	***0.25***			***3rd Trimester Exposure***	***9.1E-07***
Construction	2.00	0.06667	1090	10	2.2E-05
Infant Exposure Duration	***2.00***			***Infant Exposure***	***2.2E-05***
Construction	2.75	0.06667	572	3	4.7E-06
Operation	11.25	0.1324	572	3	3.9E-05
Child Exposure Duration	***14.00***			***Child Exposure***	***4.3E-05***
Operation	14.00	0.1324	261	1	5.3E-06
Adult Exposure Duration	***14.00***			***Adult Exposure***	***5.3E-06***
Lifetime Exposure Duration	**30.00**			**Lifetime Exposure**	**7.1E-05**

The Maximally Exposed Individual at an Existing Residential Receptor – Alternative 1					
Activity	**Duration (years)**	**Concentration (ug/m3)**	**Breathing Rate (L/kg-day)**	**ASF**	**Cancer Risk**
Construction	0.25	0.06634	361	10	9.0E-07
3rd Trimester Duration	***0.25***			***3rd Trimester Exposure***	***9.0E-07***
Construction	2.00	0.06634	1090	10	2.2E-05
Infant Exposure Duration	***2.00***			***Infant Exposure***	***2.2E-05***
Construction	2.75	0.06634	572	3	4.7E-06
Operation	11.25	0.07833	572	3	2.3E-05
Child Exposure Duration	***14.00***			***Child Exposure***	***2.8E-05***
Operation	14.00	0.07833	261	1	3.1E-06
Adult Exposure Duration	***14.00***			***Adult Exposure***	***3.1E-06***
Lifetime Exposure Duration	**30.00**			**Lifetime Exposure**	**5.3E-05**

As indicated in the table above, the excess cancer risk posed to adults, children, infants, and during the third trimester of pregnancy at the closest receptor, located approximately 225 meters away, are approximately 5.3, 43, 22, and 0.91 in one million, respectively, for Project construction and operation and approximately 3.1, 28, 22, and 0.90 in one million, respectively, for Alternative 1 construction and operation. The excess cancer risk over the course of a residential lifetime (30 years) at the maximally exposed receptor is approximately 71 in one million for the proposed Project and approximately 53 in one million for Alternative 1. The child, infant, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million, thus resulting in a significant impact not previously identified or addressed by the DEIR.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [32] The purpose of the screening-level construction HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level construction HRA indicates a potentially significant impact, the City should prepare an updated EIR with a revised HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

2. Greenhouse Gas

CEQA Guidelines § 15064.4 allows a lead agency to determine the significance of a project's GHG impact via a *qualitative analysis* (e.g., extent to which a project complies with regulations or requirements of state/regional/local GHG plans), and/or a *quantitative analysis* (e.g., using model or methodology to estimate project emissions and compare it to a numeric threshold). So too, CEQA Guidelines allow lead agencies to select what model or methodology to estimate GHG emissions so long as the selection is supported with substantial evidence, and the lead agency "should explain the limitations of the particular model or methodology selected for use." CEQA Guidelines § 15064.4(c).

Here, the DEIR included both qualitative and quantitative analyses. The DEIR's qualitative analysis considered the Project's and Alternative 1's consistency with Executive Orders S-3-05 and B-30-15, the City of Huntington Beach's Greenhouse Gas Reduction Program ("GGRP"), the Southern California Association of Government's ("SCAG") 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy ("2016 RTP/SCS"), and the California Air Resources Board ("CARB") 2017 Climate Change Scoping Plan ("2017 Scoping Plan"). Additionally, the DEIR's quantitative analysis considered the Project's and Alternative 1's estimated emissions in comparison to the SCAQMD's relevant threshold.

[32] OEHHA, *supra* fn. 20, p. 1-5.

Regarding the Project, the DEIR concludes,

> "*Pursuant to Threshold 4.6-1 [quantitative analysis],* the proposed Project's GHG emissions would exceed the SCAQMD's draft interim threshold for residential uses. Implementation of RR GHG-1, RR GHG-2, RR GHG-4 through RR GHG-7, and MM GHG-1 through MM GHG-4 would reduce emissions, but not below the SCAQMD's interim threshold. Therefore, the GHG emissions for the proposed *Project would remain significant and unavoidable* … *Pursuant to Threshold 4.6-2 [qualitative analysis]*, the proposed Project may conflict with plans, policies and regulations adopted for the purpose of reducing GHG emissions. Therefore, *impacts would be significant and unavoidable. No additional mitigation is feasible* … based upon the currently available information, the EIR concludes that the proposed Project would not result in emissions of such magnitude that would directly cause climate change, but the proposed Project may contribute to emissions that are considered to be *cumulatively considerable and result in significant cumulative GHG impacts. This impact would be significant and unavoidable* … the proposed Project, *at both the project and cumulative levels, would be significant and unavoidable.*" (DEIR, p. 4.6-26, 4.6-33 – 4.6-34. 4.6-36 [emphasis added]).

Regarding Alternative 1, the DEIR concludes,

> "*Pursuant to Threshold 4.6-1 [quantitative analysis]*, the GHG emissions associated with Alternative 1 would not exceed the SCAQMD's draft interim threshold for residential uses. This *impact would be less than significant, and no mitigation is required*. However, MM GHG-2 would also be applicable to Alternative 1 … *Pursuant to Threshold 4.6-2 [qualitative analysis]*, Alternative 1 would not conflict with plans, policies and regulations adopted for the purpose of reducing GHG emissions. Therefore, *impacts would be less than significant. No additional mitigation is needed* … the development of Alternative 1 would *not result in cumulatively considerable impacts related to GHG emissions* … Alternative 1 would be *less than significant, and no mitigation measures would be required*." (*Id*., emphasis added).

While we agree with the DEIR's conclusion that the Project would have a significant GHG impact, we disagree with the DEIR's conclusion that no additional mitigation is feasible, nor do we find that the DEIR accurately evaluated the full extent of the Project's impact. So too, we disagree with the DEIR's conclusion that Alternative 1's GHG impact is not significant, or that no mitigation is required. As discussed below, the DEIR's impact findings are incorrect and unsubstantiated due to the DEIR's inadequate qualitative and quantitative analysis (as explained below).

2.1 DEIR's Abbreviated Qualitative Analysis is Lacking Substantial Evidence

Here, as discussed below, the DEIR's qualitative analysis of GHG impacts is inadequate because: 1) it relies on consistency with generic, non-binding goals contained in SCAG's 2016 RTP/SCS and CARB's 2017 Scoping Plan; 2) ignores more specific policies contained in the 2016 RTP/SCS; and 3) fails to consider project-specific measures in the unmonitored City GGRP.

2.1.1 Improper Reliance on Generic, Non-Binding Goals

The DEIR determines that the Project would be consistent with Executive Order S-3-05 and B-30-15 by relying on consistency with a) the SCAG's 2016 RTP/SCS, and b) the CARB's 2017 Scoping Plan (DEIR, p. 4.6-28 – 4.6-30). However, the DEIR's reliance on these plans is flawed for two reasons.

i. SCAG/CARB Plans Are Non-CAPs

First, these plans do not quality as Climate Action Plans (commonly referred to as "CAP(s)"). CEQA Guidelines §§ 15064.4(b)(3) and 15183(b) allows a lead agency to consider a project's consistency with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[33] When read in conjunction, CEQA Guidelines §§ 15064.4(b)(3) and 15183.5(b)(1) make clear qualified GHG reduction plans or CAPs should include the following features:

(1) **Inventory**: Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
(2) **Establish GHG Reduction Goal**: Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
(3) **Analyze Project Types**: Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
(4) **Craft Performance Based Mitigation Measures**: Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
(5) **Monitoring**: Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels;

Collectively, the above-listed CAP features tie qualitative measures to quantitative results, which in turn become binding via proper monitoring and enforcement by the jurisdiction—all resulting in real GHG reductions for the jurisdiction as a whole, and the substantial evidence that the incremental contribution of an individual project is not cumulatively considerable. Here, however, the DEIR fails to demonstrate that the plans include the above-listed requirements to be considered a qualified CAP for

[33] Natural Resources Agency (Nov. 2018) Final Statement of Reasons For Regulatory Action: Amendments To The State CEQA Guidelines ("2018 Final Statement of Reason"), p. 19 (adding reference to section 15183.5 to section 15064.4(b)(3) because it was "needed to clarify that lead agencies may rely on plans prepared pursuant to section 15183.5 in evaluating a project's greenhouse gas emissions[,] … [which] is consistent with the Agency's Final Statement of Reasons for the addition of section 15064.4, which states that 'proposed section 15064.4 is intended to be read in conjunction with . . . proposed section 15183.5. Those sections each indicate that local and regional plans may be developed to reduce GHG emissions.'"), http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf; *see also* Natural Resources Agency (Dec. 2009) Final Statement of Reasons for Regulatory Action ("2009 Final Statement of Reason"), p. 27 ("Those sections each indicate that local and regional plans may be developed to reduce GHG emissions. If such plans reduce community-wide emissions to a level that is less than significant, a later project that complies with the requirements in such a plan may be found to have a less than significant impact."), http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

the City. As such, the DEIR leaves an analytical gap showing that compliance with said plans can be used for a project-level significance determination for the Project or Alternative 1. Thus, the DEIR's GHG analysis regarding Executive Order S-3-05 and B-30-15 and the SCAG's 2016-2040 RTP/SCS should not be relied upon to determine Project significance.

ii. SCAG/CARB Goals & Strategies Seem to Be Non-Specific and Non-Binding

Second, the DEIR does not identify or explain what specific binding requirements under SCAG's RTP/SCS or CARB's 2017 Scoping Plan account for Project-level impacts. CEQA Guidelines § 15064(h)(3) permits lead agencies to find projects not cumulatively considerable when a project complies with an approved plan or mitigation program that "provides *specific requirements* that will avoid or *substantially lessen* the cumulative problems *within the geographic area* in which the project is located … [and] the lead agency should *explain* how implementing the particular requirements in the plan, regulation or program ensure that the *project's incremental contribution* to the cumulative effect is not cumulatively considerable" (emphasis added).[34]

Here, all nine RTP/SCS goals listed in the DEIR are generic and non-specific (*see* DEIR, p. 4.6-27 [referring to RTP/SCS consistency evaluation]; *see also id*., at Tbl. 4.9-4 ["*Maximize* mobility and accessibility for all people and goods in the region … *Protect* the environment and health of our residents by improving air quality and encouraging active transportation … Actively *encourage* and create incentives for energy efficiency, *where possible* … *Encourage* land use and growth patterns that facilitate transit and active transportation." Emphasis added]). It is unclear what specific requirements would be necessary for the Project to do its part to satisfy these RTP/SCS goals, which is not explained in the DEIR. So too, the DEIR should clarify whether any of these specific requirements and goals are, in fact, mandatory and binding for the lead agency here.[35]

Similarly, the DEIR identifies CARB Scoping Plan actions or strategies seemingly without local or Project-specific measures (*id*. at p. 4.6-06, 4.6-29 [listing Cap-and-Trade, Renewables Portfolio Standard, Low Carbon Fuel Standards, updating building efficiency standards, etc.]). The DEIR should explain how state-

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[34] *Ibid*., 2009 Final Statement of Reason, pp. 14-17 (To qualify, the plan "must … include *binding* requirements to address a cumulative problem[;] … such plans contain *specific requirements* with respect to resources that are *within the agency's jurisdiction* to avoid or substantially lessen the agency's contributions to GHG emissions … consistency with plans that are *purely aspirational* (i.e., those that include only *unenforceable goals without mandatory reduction measures*), and provide no assurance that emissions within the area governed by the plan will actually address the cumulative problem[;] … by *requiring that lead agencies draw a link* between the project and the specific provisions of a binding plan or regulation, section 15064(h)(3) would ensure that cumulative effects of the project are actually addressed by the plan or regulation in question.")

[35] SCAG (Dec. 2015) 2016 RTP/SCS Program EIR ("PEIR"), p. 3.8-12 – 3.8-13 ("SB 375 provides that the SCS developed as part of the RTP *does not regulate the use of land or dictate local land use policies*, and *further expressly provides that a city's or county's* land use policies and regulations, including its general plan, are *not required to be consistent with the SCS*. Rather, SB 375 is intended to provide a regional policy foundation that local government may build upon, *if they so choose*." Emphasis added), http://scagrtpscs.net/Documents/2016/peir/draft/2016dPEIR_3_8_GreenhouseGases.pdf.

level actions and plans apply to local actions on the Project-level and whether they are binding for the lead agency.[36]

In sum, none of the SCAG or CARB goals or strategies identified in the DEIR are specific to local land use projects or binding on local governments serving as lead agency under CEQA. The DEIR cannot rely on these goals or strategies without first addressing this, per CEQA Guidelines § 15064(h)(3).

2.1.2 Failure to Demonstrate Consistency with SCAG's 2016 RTP/SCS

As discussed above, the DEIR relies upon the Project and Alternative 1's consistency with SCAG's 2016 RTP/SCS to evaluate the Project's GHG impacts. However, this is incorrect, as the DEIR fails to substantiate this conclusion.

The DEIR states that "[i]mplementation of the proposed Project and Alternative 1 would be consistent with the goals and the intent of the 2016-2040 RTP/SCS" (p. 4.9-66). The DEIR then evaluates whether the Project and Alternative 1 would conflict with the goals of the 2016 RTP/SCS (DEIR, p. 4.9-67 – 4.9-70, Tbl. 4.9-4). This assessment of the Project and Alternative 1's compliance with the RTP/SCS is incorrect and unsubstantiated, as the RTP/SCS goals are only applicable at the *plan level* to inform implementation of the RTP/SCS. Thus, the DEIR incorrectly relies upon the plan-level goals outlined in the RTP/SCS, which are not applicable at the project level, to claim consistency with the RTP/SCS as a whole. In the 2016 RTP/SCS, SCAG states,

> "The RTP/SCS is a *long-range visioning plan* that balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. Ultimately, the Plan is intended to *help guide* transportation and land use decisions and public investments … This Plan's goals are intended to *help carry out* our vision for improved mobility, a strong economy and sustainability."[37] (Emphasis added).

As the above excerpt demonstrates, the goals outlined in the 2016 RTP/SCS are intended to inform regional, plan-level efforts and are therefore not an applicable measure of any proposed *Project's* GHG impact. Thus, the DEIR's claim that the "proposed Project and Alternative 1 would be consistent with the goals and the intent of the 2016-2040 RTP/SCS" is incorrect (DEIR, p. 4.9-66). The DEIR cannot rely on plan-level goals to determine whether GHG emissions would be cumulatively considerable at the project level

Furthermore, the DEIR fails to demonstrate consistency with several of the project-level mitigation measures that are included in the 2016 SCAG RTP/SCS (see table below).

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[36] *See* CARB (12/5/18) RE Centennial Specific Plan Final EIR, pp. 3-4, 6-7 ("…if projects simply attempt to brush aside any fuel-combustion-related GHG emissions based on the misguided notion that those emissions are already mitigated by the Cap-and-Trade Program, this will substantially inhibit California's ability to meet its GHG reduction goals … The 2017 Scoping Plan Update also includes non-binding recommendations to reduce GHG emissions from individual projects …."), https://ww3.arb.ca.gov/toxics/ttdceqalist/centennialfeir.pdf.

[37] SCAG (Apr. 2016) 2016 RTP/SCS, p. 63, 65 (emphasis added), http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

SB 375 and SCAG's RTP/SCS Strategies SCAG 2012-2035 and 2016-2040 RTP/SCS and PEIR	
In September 2008, SB 375 (Gov. Code § 65080(b) *et seq*.) was instituted to help achieve AB 32 goals through strategies including requiring regional agencies to prepare a Sustainable Communities Strategy ("SCS") to be incorporated into their Regional Transportation Plan ("RTP"). The RTP links land use planning with the regional transportation system so that the region can grow smartly and sustainably, while also demonstrating how the region will meet targets set by CARB that reduce the per capita GHG emission from passenger vehicles in the region.[38] Pursuant to SB 375, CARB set the per capita GHG emission reduction targets for the SCAG region at 8 percent below 2005 per capita emissions levels by 2020, and 13 percent below 2005 per capita emissions levels by 2035.[39] In April 2012, SCAG adopted its 2012-2035 RTP/ SCS ("2012 RTP/SCS"), which proposed specific land use policies and transportation strategies for local governments to implement that will help the region achieve GHG emission reductions of 9 percent per capita in 2020 and 16 percent per capita in 2035.[40] In April 2016, SCAG adopted the 2016-2040 RTP/SCS ("2016 RTP/SCS"), which incorporates and builds upon the policies and strategies in the 2012 RTP/SCS,[41] that will help the region achieve GHG emission reductions that would reduce the region's per capita transportation emissions by eight percent by 2020 and 18 percent by 2035.[42] For both the 2012 and 2016 RTP/SCS, SCAG prepared Program Environmental Impact Reports ("PEIR") that include Mitigation Monitoring and Reporting Programs ("MMRP") that list project-level environmental mitigation measures that directly and/or indirectly relate to a project's GHG impacts and contribution to the region's GHG emissions.[43] These environmental mitigation measures serve to help local municipalities when identifying mitigation to reduce impacts on a project-specific basis that can and should be implemented when they identify and mitigate project-specific environmental impacts.[44] The table below outlines applicable land use policies, transportation strategies, and project-level mitigation measures identified in the 2012 and 2016 RTP/SCS and PEIRs.	
***Land Use Policies*[45]**	
Combating Gentrification and Displacement: Adding to the local housing stock rather than maintaining the current stock by changing the residential population, as well as pursuing the production of permanent affordable housing that will provide some units for affordable to lower-income households.	Here, the DEIR states that "Section 230.26 of HBZSO requires that at least 10 percent of all new residential construction be affordable units. An affordable housing plan would be submitted to the City at the time of Tentative Map submittal for future projects" (p. 3-7). Thus, while the Project and Alternative 1 will include affordable housing units, the DEIR fails to address gentrification or displacement, adding to the local housing stock, or permanent affordable housing.
Provide More Options for Short Trips: Given 38 percent of all trips in the SCAG region are less	Here, while the DEIR states that the Project will work with property owners "to include charging stations

[38] SCAG (Apr. 2012) 2012 RTP/SCS, p. xiii (Resolution No. 12-538-2), http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf.
[39] *Ibid*., p. 3, 108, 151-156, 197.
[40] *Ibid*., p. 107-164;
[41] SCAG (Apr. 2016) 2016 RTP/SCS, p. 69, 75-115, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.
[42] *Ibid*., p. 8, 15, 153, 166.
[43] *Ibid*., p. 116-124; *see also* SCAG 2012 RTP/SCS, *supra* fn. 38, p. 77-86.
[44] SCAG 2012 RTP/SCS, *supra* fn. 38, p. 77; *see also* SCAG 2016 RTP/SCS, *supra* fn. 41, p. 115.
[45] SCAG 2012 RTP/SCS, *supra* fn. 38, Tbls. 4.3 – 4.7; *see also* SCAG 2016 RTP/SCS, *supra* fn. 41, p. 75-114.

than three miles, projects that further policies that encourage replacing motor vehicle use with Neighborhood Electric Vehicle ("NEV") is encouraged. These land use policies shifting retail growth from large centralized retail strip malls to smaller distributed centers and the creation of these mixed-use districts by co-locating housing, employment, and a mix of retail and services that meet most daily needs of local residents with the opportunity to patronize their local area and run daily errands by walking or cycling rather than traveling by automobile.	for EVs and neighborhood electric vehicles (NEVs)," the DEIR fails to actually implement any policies or plans to replace motor vehicles with NEVs, decentralize retail growth, or encourage walking or cycling rather than traveling by automobile (p. 4.6-30). Furthermore, the DEIR also fails to address NEVs, decentralized retail growth, or encouraging walking or cycling for Alternative 1.
Transportation Network Strategies[46]	
Transit Fare Discounts: Incorporating strategies such as encourage transit fare discounts and local vendor product and service discounts for residents and employees of TOD/HQTAs, or for a jurisdiction's local residents in general who have fare media.	Here, the DEIR fails to address transit fare discounts, local vendor product and service discounts, or local residents who have fare media for both the proposed Project and Alternative 1.
Transit Integration Strategies: This refers to a suite of strategies designed to better integrate active transportation and transit by improving access for pedestrians, bicyclists and other people traveling under their own power around transit stations. Strategies include: • Bike share services in closely packed bike rental kiosks in heavily urbanized areas designed to replace short-distance motor vehicle trips, reduce parking demand and complement local bus services such as DASH in the City of Los Angeles; • Education/encouragement campaigns such as advertising, public service announcements and media kits designed to educate the public on the importance of safety.	Here, the DEIR states that "the proposed Project would promote active transportation, and connection to facilitate public access and provide for bicycles through lower speed shared roadways within the community and connection to the Class II bicycle lane on Magnolia Street" (p. 4.9-17, Table 4.9-2). The DEIR then states that this also applies to Alternative 1. However, simply because lower speed shared roadways exist in the community and the Project connects to one bicycle lane on Magnolia Street does not mean that the Project or Alternative 1 is actually implementing transit integration strategies. The DEIR fails to address both bike rental kiosks or bike share services as well as education/encouragement campaigns. Simply stating that the Project will "promote active transportation" by existing in a setting with bike lanes and lower speeds does not mean the Project is actually implementing any transit integration strategies. The DEIR briefly states that "open space would include pedestrian amenities, *such as* bicycle racks," however, the DEIR fails to actually commit to the implementation of this policy or its monitoring and enforcement (emphasis added) (p. 4.9-20, Table 4.9-2).

[46] *Ibid*.

Transportation Demand Management (TDM) Strategies[47]	
Expand and encourage the implementation of TDM strategies to their fullest extent such as: • Rideshare incentives and rideshare matching • Parking management and parking cash-out policies • Preferential parking or parking subsidies for carpoolers, • Intelligent parking programs, • Promotion and expansion of Guaranteed Ride Home programs, • Incentives for telecommuting and flexible work schedules, • Integrated mobility hubs and first/last mile strategies, • Incentives for employees who bike and walk to work, • Investments in active transportation infrastructure, and • Investments in Safe Routes to School programs and infrastructure.	Here, the DEIR fails to address TDM strategies. More specifically, the DEIR fails to mention rideshare, parking management and parking cash-out policies, intelligent parking programs, Guaranteed Ride Home programs, telecommuting and flexible work schedules, integrated mobility hubs and first/last mile strategies, incentives for employees who bike and walk to work, or Safe Routes to School programs and infrastructure. In regards to carpoolers, the DEIR states that "[t]he Project would also be required to comply with the regulatory requirements identified under Section 4.6.8; which includes…preferential parking for carpool/vanpools" (p. 4.6-30). However, the DEIR fails to state the quantity of parking that will be designated for carpools/vanpools or how this measure will be implemented, monitored, and enforced. It also fails to address parking subsidies whatsoever. As previously discussed, the Project also exists in a community which has bike lanes and lower speeds, but fails to invest in active transportation infrastructure. Finally, the DEIR fails to address the TDM strategies discussed in regards to Alternative 1.
Clean Vehicle Technology Strategies[48]	
NEVs: Support sub-regional strategies to develop infrastructure and supportive land uses to accelerate fleet conversion to electric technologies, zero-emissions vehicles, and Neighborhood Electric Vehicles ("NEVs").	Here, as previously stated, the DEIR claims that the Project will work with property owners "to include charging stations for EVs and neighborhood electric vehicles (NEVs)" (p. 4.6-30). However, the DEIR fails to include any information on how many charging stations will be included, and if they will actually be implemented, monitored, and enforced, or any applications to Alternative 1.
Anticipating Shared Mobility Platforms, Car-To-Car Communication, and Automated Vehicle Technologies: Shared Mobility encompasses a wide range of services including Return Trip Car Sharing, Point-to-Point Car Sharing, Peer-to-Peer Car Sharing, Ridesourcing, Dynamic On-Demand Private Transit, Vanpool and Private Employer Charters.	Here, the DEIR fails to address shared mobility, including return trip car sharing, point-to-point car sharing, peer-to-peer car sharing, ride sourcing, dynamic on-demand private transit, or private employer charters. As previously discussed, while the DEIR briefly mentions preferential parking for carpools/vanpools, the DEIR fails to state the quantity of parking that will be designated for carpools/vanpools or how this measure will be implemented, monitored, and enforced. The RTC

[47] *Ibid*.
[48] *Ibid*.

	also states that CALGreen Standards include, but *are not limited to,* providing "designated parking for any combination of low-emitting, fuel efficient and carpool/vanpool vehicles under Section 5.106.5.2" (RTC, p. 3-40). However, as previously discussed, just because the RTC states that the Project will comply with CALGreen does not verify that these specific measures will actually be implemented. Rather, specific information should be disclosed, including the number of spaces and guarantees for implementation, in order to verify the use of this measure. Finally, the DEIR and RTC fail to address shared mobility, return trip car sharing, point-to-point car sharing, peer-to-peer car sharing, ride sourcing, dynamic on-demand private transit, or private employer charters in regards to Alternative 1.

The following feasible project-level GHG reduction measures are also available to be considered and implemented in the proposed Project.

RTP/SCS Project-Level Environmental Mitigation Measures[49]
The following project-level measures are recommended as part of SCAG's RTP/SCS to reduce project-level GHG emissions. The DEIR should additionally consider implementation of these measures in order to feasibly reduce the Project's GHG emissions and demonstrate consistency with the corresponding plans.
GHG Emissions
• Reduction in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines,[50] such as: o Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed. o The potential siting, orientation, and design to minimize energy consumption, including transportation energy. o The potential for reducing peak energy demand. o Alternate fuels (particularly renewable ones) or energy systems.

[49] SCAG 2012 RTP/SCS (Mar. 2012) Final PEIR MMRP, p. 6-2—6-14 (including mitigation measures ("MM") AQ3, BIO/OS3, CUL2, GEO3, GHG15, HM3, LU14, NO1, POP4, PS12, TR23, W9 [stating "[l]ocal agencies *can and should comply* with the requirements of CEQA to mitigate impacts to [the environmental] as applicable and feasible … [and] may refer to *Appendix G* of this PEIR for examples of potential mitigation to consider when appropriate in reducing environmental impacts of future projects." (Emphasis added)]), http://rtpscs.scag.ca.gov/Documents/peir/2012/final/Final2012PEIR.pdf; *see also id.*, Final PEIR Appendix G (including MMs AQ1-23, GHG1-8, PS1-104, TR1-83, W1-62), http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_ExampleMeasures.pdf; SCAG 2016 RTP/SCS (Mar. 2016) Final PEIR MMRP, p. 11–63 (including MMs AIR-2(b), AIR-4(b), EN-2(b), GHG-3(b), HYD-1(b), HYD-2(b), HYD-8(b), TRA-1(b), TRA-2(b), USS-4(b), USS-6(b)), http://scagrtpscs.net/Documents/2016/peir/final/2016fPEIR_ExhibitB_MMRP.pdf.

[50] CEQA Guidelines, Appendix F-Energy Conservation, http://resources.ca.gov/ceqa/guidelines/Appendix_F.html.

- Energy conservation which could result from recycling efforts.
- Off-site measures to mitigate a project's emissions.
- Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to:
  - Use energy and fuel-efficient vehicles and equipment;
  - Deployment of zero- and/or near zero emission technologies;
  - Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
  - Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse;
  - Incorporate design measures to reduce energy consumption and increase use of renewable energy;
  - Incorporate design measures to reduce water consumption;
  - Use lighter-colored pavement where feasible;
  - Recycle construction debris to maximum extent feasible;
- Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs.
- Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;
- Land use siting and design measures that reduce GHG emissions, including:
  - Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and
  - Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.

Hydrology & Water Quality

- Incorporate measures consistent in a manner that conforms to the standards set by regulatory agencies responsible for regulating water quality/supply requirements, such as:
  - Reduce exterior consumptive uses of water in public areas, and should promote reductions in private homes and businesses, by shifting to drought-tolerant native landscape plantings (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.
  - Promote the availability of drought-resistant landscaping options and provide information on where these can be purchased. Use of reclaimed water especially in median landscaping and hillside landscaping can and should be implemented where feasible.
  - Implement water conservation best practices such as low-flow toilets, water-efficient clothes washers, water system audits, and leak detection and repair.
  - Ensure that projects requiring continual dewatering facilities implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project. Comply with appropriate building codes and standard practices including the Uniform Building Code.
  - Maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. Minimized new impervious surfaces to the greatest extent possible, including the use of in-lieu fees and off-site mitigation.

- Avoid designs that require continual dewatering where feasible.
- Where feasible, do not site transportation facilities in groundwater recharge areas, to prevent conversion of those areas to impervious surface.

- Incorporate measures consistent in a manner that conforms to the standards set by regulatory agencies responsible for regulating and enforcing water quality and waste discharge requirements, such as:
  - Complete, and have approved, a Stormwater Pollution Prevention Plan ("SWPPP") before initiation of construction.
  - Implement Best Management Practices to reduce the peak stormwater runoff from the project site to the maximum extent practicable.
  - Comply with the Caltrans stormwater discharge permit as applicable; and identify and implement Best Management Practices to manage site erosion, wash water runoff, and spill control.
  - Complete, and have approved, a Standard Urban Stormwater Management Plan, prior to occupancy of residential or commercial structures.
  - Ensure adequate capacity of the surrounding stormwater system to support stormwater runoff from new or rehabilitated structures or buildings.
  - Prior to construction within an area subject to Section 404 of the Clean Water Act, obtain all required permit approvals and certifications for construction within the vicinity of a watercourse (e.g., Army Corps § 404 permit, Regional Waterboard § 401 permit, Fish & Wildlife § 401 permit).
  - Where feasible, restore or expand riparian areas such that there is no net loss of impervious surface as a result of the project.
  - Install structural water quality control features, such as drainage channels, detention basins, oil and grease traps, filter systems, and vegetated buffers to prevent pollution of adjacent water resources by polluted runoff where required by applicable urban stormwater runoff discharge permits, on new facilities.
  - Provide structural stormwater runoff treatment consistent with the applicable urban stormwater runoff permit where Caltrans is the operator, the statewide permit applies.
  - Provide operational best management practices for street cleaning, litter control, and catch basin cleaning are implemented to prevent water quality degradation in compliance with applicable stormwater runoff discharge permits; and ensure treatment controls are in place as early as possible, such as during the acquisition process for rights-of-way, not just later during the facilities design and construction phase.
  - Comply with applicable municipal separate storm sewer system discharge permits as well as Caltrans' stormwater discharge permit including long-term sediment control and drainage of roadway runoff.
  - Incorporate as appropriate treatment and control features such as detention basins, infiltration strips, and porous paving, other features to control surface runoff and facilitate groundwater recharge into the design of new transportation projects early on in the process to ensure that adequate acreage and elevation contours are provided during the right-of-way acquisition process.
  - Design projects to maintain volume of runoff, where any downstream receiving water body has not been designed and maintained to accommodate the increase in flow velocity, rate, and volume without impacting the water's beneficial uses. Pre-project flow velocities, rates, and volumes must not be exceeded. This applies not only to increases in stormwater runoff from the project site, but also to hydrologic changes induced by flood plain encroachment. Projects should not cause or contribute to conditions that degrade the physical integrity or ecological function of any downstream receiving waters.

- Provide culverts and facilities that do not increase the flow velocity, rate, or volume and/or acquiring sufficient storm drain easements that accommodate an appropriately vegetated earthen drainage channel.
- Upgrade stormwater drainage facilities to accommodate any increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce flow velocities, including expansion and restoration of wetlands and riparian buffer areas. System designs shall be completed to eliminate increases in peak flow rates from current levels.
- Encourage Low Impact Development ("LID") and incorporation of natural spaces that reduce, treat, infiltrate and manage stormwater runoff flows in all new developments, where practical and feasible.

- Incorporate measures consistent with the provisions of the Groundwater Management Act and implementing regulations, such as:
  - For projects requiring continual dewatering facilities, implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project, Construction designs shall comply with appropriate building codes and standard practices including the Uniform Building Code.
  - Maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. Minimize to the greatest extent possible, new impervious surfaces, including the use of in-lieu fees and off-site mitigation.
  - Avoid designs that require continual dewatering where feasible.
  - Avoid construction and siting on groundwater recharge areas, to prevent conversion of those areas to impervious surface.
  - Reduce hardscape to the extent feasible to facilitate groundwater recharge as appropriate.
- Incorporate mitigation measures to ensure compliance with all federal, state, and local floodplain regulations, consistent with the provisions of the National Flood Insurance Program, such as:
  - Comply with Executive Order 11988 on Floodplain Management, which requires avoidance of incompatible floodplain development, restoration and preservation of the natural and beneficial floodplain values, and maintenance of consistency with the standards and criteria of the National Flood Insurance Program.
  - Ensure that all roadbeds for new highway and rail facilities be elevated at least one foot above the 100-year base flood elevation. Since alluvial fan flooding is not often identified on FEMA flood maps, the risk of alluvial fan flooding should be evaluated and projects should be sited to avoid alluvial fan flooding. Delineation of floodplains and alluvial fan boundaries should attempt to account for future hydrologic changes caused by global climate change.

Transportation, Traffic, and Safety

- Institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation.
- Create a ride-sharing program by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.
- Provide a vanpool for employees.
- Provide a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use, including:

- Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement.
- Direct transit sales or subsidized transit passes.
- Guaranteed ride home program.
- Pre-tax commuter benefits (checks).
- On-site car-sharing program (such as City Car Share, Zip Car, etc.).
- On-site carpooling program.
- Distribution of information concerning alternative transportation options.
- Parking spaces sold/leased separately.
- Parking management strategies; including attendant/valet parking and shared parking spaces.

- Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.
- Encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations, providing shuttle service to public transit, offering public transit incentives and providing public education and publicity about public transportation services.
- Build or fund a major transit stop within or near transit development upon consultation with applicable CTCs.
- Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.
- Purchase, or create incentives for purchasing, low or zero-emission vehicles.
- Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.
- Promote ride sharing programs, if determined feasible and applicable by the Lead Agency, including:
  - Designate a certain percentage of parking spaces for ride-sharing vehicles.
  - Designate adequate passenger loading, unloading, and waiting areas for ride-sharing vehicles.
  - Provide a web site or message board for coordinating shared rides.
  - Encourage private, for-profit community car-sharing, including parking spaces for car share vehicles at convenient locations accessible by public transit.
  - Hire or designate a rideshare coordinator to develop and implement ridesharing programs.
- Support voluntary, employer-based trip reduction programs, if determined feasible and applicable by the Lead Agency, including:
  - Provide assistance to regional and local ridesharing organizations.
  - Advocate for legislation to maintain and expand incentives for employer ridesharing programs.
  - Require the development of Transportation Management Associations for large employers and commercial/ industrial complexes.
  - Provide public recognition of effective programs through awards, top ten lists, and other mechanisms.
- Implement a “guaranteed ride home” program for those who commute by public transit, ride-sharing, or other modes of transportation, and encourage employers to subscribe to or support the program.
- Encourage and utilize shuttles to serve neighborhoods, employment centers and major destinations.
- Create a free or low-cost local area shuttle system that includes a fixed route to popular tourist destinations or shopping and business centers.
- Work with existing shuttle service providers to coordinate their services.
- Facilitate employment opportunities that minimize the need for private vehicle trips, such as encourage telecommuting options with new and existing employers, through project review and incentives, as appropriate.

• Organize events and workshops to promote GHG-reducing activities.
• Implement a Parking Management Program to discourage private vehicle use, including:
  o Encouraging carpools and vanpools with preferential parking and a reduced parking fee.
  o Institute a parking cash-out program or establish a parking fee for all single-occupant vehicles.

Utilities & Service Systems

• Integrate green building measures consistent with CALGreen (Title 24, part 11), U.S. Green Building Council's Leadership in Energy and Environmental Design, energy Star Homes, Green Point Rated Homes, and the California Green Builder Program into project design including, but not limited to the following:
  o Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.
  o Inclusion of a waste management plan that promotes maximum C&D diversion.
  o Development of indoor recycling program and space.
  o Discourage exporting of locally generated waste outside of the SCAG region during the construction and implementation of a project. Encourage disposal within the county where the waste originates as much as possible. Promote green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with SCAQMD and 2016 RTP/SCS policies can and should be required.
  o Develop ordinances that promote waste prevention and recycling activities such as: requiring waste prevention and recycling efforts at all large events and venues; implementing recycled content procurement programs; and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities.
  o Develop alternative waste management strategies such as composting, recycling, and conversion technologies.
  o Develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts.
  o Require the reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
  o Integrate reuse and recycling into residential industrial, institutional and commercial projects.
  o Provide recycling opportunities for residents, the public, and tenant businesses.
  o Provide education and publicity about reducing waste and available recycling services.
  o Implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.

As the above tables indicate, the DEIR fails to mention or demonstrate consistency with the above listed measures and strategies of the SCAG's RTP/SCS. Thus, the DEIR fails to provide sufficient information and analysis or reconcile inconsistencies with various measures and policies under the RTP/SCS. To the extent that the Project and Alternative 1 fail to comply with the measures mentioned above, the Project and Alternative 1 are inconsistent with applicable GHG-reducing plans. Therefore, the Project and Alternative 1 may have a significant GHG impact that requires all feasible mitigation, including compliance with the measures mentioned above and other applicable mitigation measures.[51]

[51] CAPCOA (Aug. 2010) Quantifying Greenhouse Gas Mitigation Measures, p. 433, http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.

Furthermore, CARB asserts that the Sustainable Communities Strategy ("SCS") is not enough, and recently found that California "*is not on track*" to meet GHG reductions expected under SB 375 (i.e., SCS).[52] As warned by CARB, "with emissions from the transportation sector continuing to rise despite increases in fuel efficiency and decreases in the carbon content of fuel, *California will not achieve the necessary [GHG] emissions reductions to meet mandates for 2030* and beyond …" (emphasis added).[53] Therefore, the Project and Alternative 1 may require more GHG-reducing measures to offset the lost GHG reductions anticipated under SCAG's RTP/SCS.

2.1.3 Failure to Demonstrate Consistency with City's Unmonitored Climate Action Plan

The DEIR determines that the Project and Alternative 1 's GHG impact would be less than significant as a result of consistency with the City of Huntington Beach's Greenhouse Gas Reduction Program ("GGRP"), a local Climate Action Plan ("CAP"). The DEIR cites to the March 2017 *Draft* GGRP, provided as Appendix G to the 2017 Program EIR for the City of Huntington Beach General Plan Update (DEIR, p. 4.6-38). Assuming the Draft GGRP was made final when the City's General Plan Update was adopted in October 2017,[54] the EIR's determination that both the Project and Alternative 1 are consistent with the GGRP (DEIR, p. 4.6-32 – 4.6-33) is incorrect for two reasons.

i. GGRP Is Not Systematically Monitored

First, the DEIR fails to show the GGRP is actually being implemented, enforced, and monitored. For example, the GGRP explicitly states:

> "In order to ensure that the GGRP is effectively put into practice and achieving the desired reductions, City staff and officials will *have to* develop and execute the GHG reduction strategies and their associated implementation actions, *monitor* implementation of the GGRP, and *make revisions* to the City's overall GHG reduction approach as needed to help meet the targets." (GGRP, p. 34 [emphasis added]).

To this end, the GGRP includes City-specific implementation programs to establish a framework for implementation of the overall GGRP that have not been fulfilled, including:

City's 2017 Draft GHG Reduction Program[55]	
Measure	**Inconsistency**
ERC-P.2: Greenhouse Gas Emissions Tracking (Time Frame: Annually Beginning in 2018): Monitor the status of greenhouse gas emissions in Huntington Beach, as directed by the Greenhouse Gas Reduction Program, and report the results to	Here, the most recent GHG inventory contained in the GGRP is from 2012. However, no annual progress reports are referenced in the Project's DEIR or City website since the GGRP's assumed adoption when the General Plan Update was

[52] CARB (Nov. 2018) 2018 Progress Report, p. 4-7 (emphasis added), https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf.
[53] *Ibid*.
[54] City of Huntington Beach (2019) General Plan Update Website, https://www.huntingtonbeachca.gov/government/departments/planning/major/general-plan-update.cfm.
[55] City of Huntington Beach (Mar. 2017) Appendix G: Draft GGRP, p. 34-35, https://huntingtonbeachca.gov/files/users/planning/Volume-III-Appendix-G-GHG-ReductionProgram.pdf.

City officials and members of the public as part of an annual reporting effort, through the following actions: • Estimate community greenhouse gas emissions to track progress toward adopted greenhouse gas emissions reduction goals of 15 percent below 2005 levels by 2020, and 53.33 percent below 2020 levels by 2040. • Track implementation of all greenhouse gas emissions reduction measures and actions, including the status of each effort and progress toward the performance metrics in the Greenhouse Gas Reduction Program.	approved in October 2017. If the GGRP was effectively being implemented and monitored, said annual reports should be readily available and include estimated community-wide GHG emissions and implementation of said GHG reduction measures. Best practices dictate adequate monitoring and reporting to ensure local CAPs remain effective.[56]
ERC P.3: Greenhouse Gas Reduction Program Maintenance (Time Frame: Annually Beginning in 2018): Amend the Greenhouse Gas Reduction Program regularly based on the results of annual monitoring efforts, to achieve the adopted greenhouse gas emissions reduction targets in a manner consistent with community values. Support increased implementation of successful strategies, and identify opportunities to revise strategies as appropriate.	Here, the apparent lack of annual monitoring reports (discussed above) makes this strategy impossible for the City to implement. For example, adequate annual monitoring would include vetting of the 2012 inventory data used to forecast community service population and GHG emissions. If inaccurate, the GGRP would be amended to achieve the GHG emission reduction targets specified in the GGRP (i.e., approximately 16 and 53 percent below 2005 levels by 2020 and 2040, respectively [GGRP, p. 8, 13]). However, because no annual monitoring reports have been prepared, this strategy has not been addressed.
ERC-P.4. Greenhouse Gas Reduction Program Funding (Time Frame: Annually Beginning in 2018): Secure the funding necessary to implement the strategies and implementation actions in the Greenhouse Gas Reduction Program. Identify funding sources as part of an annual report, and integrate funding needs into City department budgets, capital improvement plans, and other plans as appropriate. Pursue federal, state, regional, and local sources of funding as appropriate. Work to ensure that funds are returned to areas where GHG emissions are generated and that programs benefit the communities impacted by emissions.	Here, because the City has seemingly failed to prepare annual reports, it is unknown whether the necessary funding has been secured to implement the actions/strategies included in the GGRP. Absent the annual reporting, it is unknown whether the City has the adequate funding to ensure GGRP implementation.

[56] AEP (Summer 2019) AEP Climate Change Committee 2018 White Paper: Best Practicing in Implementing Climate Action Plans, p. 21-24, https://www.califaep.org/docs/WhitePaper_Pages_from_AEP_EM_Summer2019_7-23-2019.pdf.

As the above table indicates, the City seems to have failed to satisfy its annual reporting requirement, including the verification of "assumptions," "emissions and activity data savings," and "performance targets" listed for many of the strategies listed in the GGRP.[57] As previously discussed, adequate monitoring is a key component of a qualified CAP under CEQA Guidelines § 15183.5(b). With no annual reports readily available, the DEIR lacks substantial evidence that the GGRP is being adequately monitored and, therefore, does not qualify as a CAP for streamline review under the CEQA Guidelines.

ii. The DEIR Fails to Address Project-Level Mitigation Measures

Second, the DEIR fails to prove that the Project and Alternative 1 would be consistent with the City's GGRP, as the DEIR fails to address several of the project-level mitigation measures included in the GGRP (see table below).

City's 2017 Draft GHG Reduction Program[58]	
Measure	**Inconsistency**
Transportation Strategies	
T-2 – Shared Parking: Use shared parking strategies to maximize development potential while providing a sufficient supply of parking.	Here, the DEIR fails to mention shared parking or strategies to maximize development potential.
T-4 – Carsharing: Attract carshare services to Huntington Beach and promote them as a supplemental transportation service.	Here, the DEIR fails to mention carsharing or its promotion as a supplemental transportation service.
T-5 – Telecommuting and Alternative Work Schedules: Establish telecommuting and alternative work schedules to reduce peak commute traffic.	Here, the DEIR fails to mention telecommuting and alternative work schedules or peak commute traffic reductions.
T-6 – Transportation Demand Management: Reduce commute-related trips for major employers.	Here, the DEIR fails to mention transportation demand management.
T-7 – Shuttle Service: Provide a year-round shuttle service for visitor destinations.	Here, the DEIR fails to mention a shuttle service.
T-8 – Traffic Calming: Install traffic-calming features on appropriate roadways to better allow for active transportation.	Here, the DEIR state fails to adequately address traffic calming measures. While the DEIR states that, "[i]nternal roads would provide traffic calming measures, including roundabouts, knuckles, and on-street parking, to reduce traffic speeds and increase safety," the DEIR fails to demonstrate how these traffic calming measures would be implemented and enforced (p. 4.9-19). The DEIR states that the above measure would also apply to

[57] City of Huntington Beach, *supra* fn. 55, p. A-13 – A-64 (including various assumptions, emissions and activity data savings, and performance targets for many of the listed strategies).
[58] *Ibid*.

	Alternative 1 (p. 4.9-19). However, without any information regarding how these measures would be implemented and enforced, we cannot verify that traffic calming will be incorporated into the Project or Alternative 1.
Alternative Fuel Strategies	
F-1 – Traffic Signal Synchronization: Continue to synchronize traffic signals along major roadways to reduce traffic idling.	Here, the DEIR states that a goal of the Huntington Beach General Plan will be to "[c]ontinue to explore and implement strategies to minimize vehicle idling, including traffic signal synchronization and roundabouts" (p. 4.2-11). However, simply stating that this goal is part of the Huntington Beach General Plan does not provide any information regarding how or if traffic signal synchronization would be incorporated in the proposed Project or Alternative 1.
F-2 – Electric Vehicles: Increase electric vehicle adoption in Huntington Beach.	Here, as previously stated, the DEIR claims that the Project will work with property owners "to include charging stations for EVs and neighborhood electric vehicles (NEVs)" (p. 4.6-30). However, the DEIR fails to include any information on how many charging stations will be included, and if they will actually be implemented, monitored, and enforced. Furthermore, there is no mention of how this measure would be incorporated as part of Alternative 1. Thus, we cannot verify whether the proposed Project or Alternative 1 would increase electric vehicle adoption in Huntington Beach.
F-3 – Biofuel Vehicles: Increase the use of biofuel-powered vehicles in the community.	Here, the DEIR fails to mention biofuel vehicles.
F-4 – Autonomous Vehicles: Enable autonomous vehicle operation in Huntington Beach to improve mobility and increase traffic efficiency.	Here, the DEIR fails to mention autonomous vehicles.
Renewable Energy Strategies	
RE-1 – Residential Solar: Expand the number of solar energy systems on new and existing single-family homes and multifamily developments.	Here, the DEIR states that the Project would "[e]ncourage new and significantly retrofitted homes and multifamily buildings to be pre-wired and pre-plumbed for rooftop solar energy systems (RE-1)" (p. 4.6-30). However, the DEIR fails to include any information on how the application of residential solar energy systems would be implemented, monitored, and enforced. Furthermore, there is no mention of how this measure would be incorporated as part of Alternative 1.

RE-2 – Nonresidential Solar: Expand the number of solar energy systems on new and existing nonresidential buildings.	Here, the DEIR states that the Project would "[e]ncourage new and significantly retrofitted nonresidential buildings to be pre-wired and pre-plumbed for rooftop solar energy systems (RE-2)" (p. 4.6-31). However, the DEIR fails to include any information on how the implementation of nonresidential solar energy systems would be implemented, monitored, and enforced. In addition, while Title-24 Standards require the Project to utilize solar for single-family housing, the DEIR fails to address solar use for the Project's other land uses, including hotels, parking, park, and the shopping center. Furthermore, there is no mention of how this measure would be incorporated as part of Alternative 1.
RE-3 – Community-Shared Solar: Establish community-shared solar operations in Huntington Beach to support the increased use of renewable energy.	Here, the DEIR fails to mention community-shared solar operations.
RE-4 – New Zero Net Energy Buildings: Transition to zero net energy buildings for all new construction in support of state mandates.	Here, the DEIR states that "The proposed hotel shall install solar photovoltaic panels on available roof space. It is anticipated that 50 percent of the roof space (approximately 3,000 square feet) would be used for the installation of solar photovoltaic panels" (p. 4.6-35). However, as previously discussed, while Title 24 Standards require energy production to equal demand for *residential* land uses, the DEIR fails to prove that this requirement extends to non-residential land uses. As such, while the Project's single-family homes may be zero net energy, the rest of the Project, including hotel, city park, parking lot, and regional shopping center land uses fail to meet this measure.
RE-5 – Solar Swimming Pool Heating: Use solar heating technologies for an increased number of new and existing swimming pools.	Here, the DEIR states that the Project would "Provide information about solar water heating to swimming pool owners and project applicants (RE-5)" (p. 4.6-31). However, simply stating that the Project would "provide information about solar water heating" does not be that this measure would be implemented. Thus, we cannot verify that this measure would be implemented and enforced. Furthermore, there is no mention of how this measure would be incorporated as part of Alternative 1.

Energy Efficiency Strategies	
EE-7 – Low Income Weatherization: Improve energy efficiency and comfort in low-income housing units through weatherization.	Here, the DEIR fails to mention weatherization as a method of improving energy efficiency and comfort in low-income housing units.
EE-8 – Electrification: Replace natural gas with electricity in new and significantly renovated homes.	Here, the DEIR fails to mention the replacement of natural gas with electricity in proposed dwelling units.
Off-Road Equipment Strategies	
OR-1 – Alternative Fuel Landscaping Equipment: Replace gasoline and diesel landscaping equipment with hybrid and alternative fuel models.	Here, the DEIR states that the proposed Project would "[i]n coordination with the South Coast Air Quality Management District, continue to work with property owners and landscaping companies to promote the availability of hybrid and alternative fuel landscaping equipment, and any incentives available (OR-1)" (p. 4.6-31). However, simply stating that the Project would "promote the availability of hybrid and alternative fuel landscaping equipment" does not guarantee that the Project would replace gasoline and diesel landscaping equipment as part of the proposed Project. Furthermore, there is no mention of how this measure would be incorporated as part of Alternative 1.
OR-2 – Alternative Fuel Construction Equipment: Improve air quality by reducing emissions from construction equipment.	Here, DEIR states that the Project would comply with the City of Huntington Beach's GGRP implementation action to: "[c]ontinue to require construction projects to carry out best available air quality mitigation practices, including use of alternative fuel vehicles and equipment as feasible (ERC-4B)" (4.6-32). However, the DEIR fails to commit to the use of alternative fuel construction equipment. Furthermore, there is no mention of how this measure would be incorporated as part of Alternative 1.
Water and Wastewater Strategies	
WW-1 – Indoor Water Efficiency: Reduce indoor water use in the community.	Here, the DEIR states that the Project will "[e]ncourage new development projects to install water fixtures that exceed the minimum state efficiency requirements" (p. 4.6-31). However, the DEIR fails to state how it will encourage other projects to implement efficient water fixtures or how this will be monitored and enforced. In addition, the DEIR fails to state specifically what efficient water fixtures the Project will use or any sort of monitoring and enforcement program. As a result, we cannot verify that the Project is reducing indoor water efficiency or promoting it for other

	projects. Furthermore, there is no mention in the DEIR of how indoor water use would be reduced as part of Alternative 1. Finally, the CalEEMod output files reveal that the air model actually includes manual *increases* in indoor water use from the CalEEMod default values for both the Project and Alternative. Thus, we can assume that both the Project and Alternative 1 may actually *increase* the community's indoor water use.
WW-2 – Water-Efficient Landscaping: Reduce the amount of water used for landscaping in Huntington Beach.	Here, the DEIR states that the Project will "[c]ontinue to provide information to community residents about water-free and drought-tolerant landscaping" (p. 4.6-31). However, the DEIR fails to indicate current programs and policies to provide information, leaving an analytical gap between what is currently being done and what will "continue" to be done. In addition, the DEIR fails to state what the proposed Project will actually do to provide information to residents, how often it occurs, or any sort of monitoring and enforcement information. The DEIR also fails to mention that any of the Project's landscaping will be water-efficient. Furthermore, there is no mention of how water-efficient landscaping would be included as part of Alternative 1. As such, we cannot verify that the Project, or Alternative 1, will actually promote or utilize water-efficient landscaping whatsoever.
Resource Management Strategies	
RM-1 – Construction and Demolition Waste: Increase recycling of construction and demolition waste from new construction and renovation activities beyond the state minimum.	Here, the DEIR states that the Project or Alternative 1 "would comply with the current CALGreen Code through the recycling and reuse of at least 65 percent of the nonhazardous construction and demolition debris from the Project site" (pp. 4.16-25). However, the DEIR states that the Project would *comply* with the CALGreen code and fails to address that the Project would go *beyond* the state minimum. The DEIR also states that the Project will "[s]upport state and federal efforts to increase recycling rates and expand markets for C&D materials" (p. 4.6-31). However, the DEIR fails to state how the Project will support these efforts. As a result, we cannot verify that this will occur or that the Project will do anything in this regard.
RM-2 – Composting and Organic Waste: Reduce the amount of organic wastes sent to landfills.	Here, while the DEIR addresses various plans and policies that include provisions regarding composting, the DEIR fails to address any components of the Project itself that will include or promote the use of composting on-site.

RM-3 – Increased Recycling: Improve the use of recycling bins to minimize the amount of lost materials.	Here, the Project fails to address improving the use of recycling bins or the quantity of recycling bins that will be available on the Project site.
Community Awareness Strategies	
CA-1 – Energy Competition: Conduct recurring energy competitions to encourage energy efficiency and conservation.	Here, the DEIR fails to address energy competitions to encourage energy efficiency and conservation.
CA-2 – Green Building Awareness: Raise community awareness of green building strategies for new and significantly renovated buildings.	Here, the DEIR fails to address community awareness of green building strategies, including the Project's own green building strategies.
CA-3 – Buy Local: Improve the visibility of locally produced goods in Huntington Beach retail markets.	Here, the DEIR fails to address improving the visibility of locally produced goods in the retail aspects of the Project.
CA-4 – Advanced Green Technologies: Establish Huntington Beach as a center for green technology research and innovation.	Here, the DEIR states that the Project will "[p]rovide information for project applicants about newly available green building technologies and features, and encourage applicants to incorporate these elements into their projects" (p. 4.6-31). However, the DEIR fails to state who these "project applicants" are and how they will affect green technologies for the City. Rather, the DEIR should state how the Project itself actually incorporates green technologies. Furthermore, there is no mention of how advanced green technologies would be incorporated in Alternative 1.
CA-6 – Workforce Training: Maximize economic opportunities for green jobs in Huntington Beach.	Here, the DEIR fails to address green jobs or workforce training in the DEIR.
CA-7 – Waste Minimization: Reduce the amount of solid waste produced in Huntington Beach.	Here, the DEIR states that the Project will "[e]xplore strategies to reduce the amount of waste associated with the packaging and purchasing of food and retail products, especially waste materials that cannot be easily recycled" (p. 4.6-31). However, the DEIR fails to actually state that the Project will implement any measures or policies. Stating that the Project will "explore strategies" fails to prove that anything will actually be implemented or enforced in this regard. Furthermore, the DEIR states that these strategies will only be in regards to "waste associated with the packaging and purchasing of food and retail products," which fails to incorporate any waste reductions from the residential and hotel land uses. Finally, there is no mention of how Alternative 1 would minimize the amount of solid waste produced.

As the above table indicates, the DEIR fails to mention or demonstrate consistency with the above listed measures and strategies of the City of Huntington Beach 2017 Draft GGRP. Thus, the DEIR fails to provide sufficient information and analysis or reconcile inconsistencies with various measures and goals/policies under the City of Huntington Beach 2017 Draft GGRP. To the extent that the Project and Alternative 1 fail to comply with the measures mentioned above, the Project and Alternative 1 are inconsistent with applicable GHG-reducing plans. Therefore, the Project and Alternative 1 may have a significant GHG impact that requires all feasible mitigation, including compliance with the measures mentioned above and other applicable mitigation measures.[59]

2.2 DEIR's Quantitative Analysis Is Incorrect

Here, as discussed below, the DEIR's quantitative analysis of GHG impacts is incorrect because: 1) it relies on an unsubstantiated air model; 2) it overestimates the Project's service population; 3) it fails to conduct a complete and accurate SCAQMD multi-tier analysis for the Project or Alternative 1; 4) it fails to compare the Project or Alternative 1 to performance-based measures in SCAG's 2016 RTP/SCS to show consistency with the plan; 5) it fails to compare the Project or Alternative 1 to performance-based measures recommended by CARB to show consistency with the 2017 Scoping Plan; and 6) due to the errors in the DEIR's qualitative and quantitative analysis, the DEIR fails to conduct a GHG analysis consistent with evolving scientific knowledge and regulatory schemes.

2.2.1 Unsubstantiated Input Parameters Underestimate GHG Emissions

As previously discussed (*supra* section 1.1), the CalEEMod output files demonstrate that the input parameters used in the model were inconsistent with information disclosed in the DEIR (e.g., failure to model total amount of parking, unsubstantiated reductions in operational energy use, double count pass-by trips, underestimated trip rates and fleet mix, unsubstantiated application of mitigation measures). By utilizing incorrect and/or unsubstantiated input parameters in the model, the metric tons of carbon dioxide equivalent emissions per year ("MTCO2e/yr") disclosed in the DEIR is underestimated. Hence, the claim that the Project will create 5,150 $MTCO_2e$/yr and Alternative 1 will create 2,852 $MTCO_2e$/yr in GHG emissions is incorrect.[60]

When unsubstantiated parameters are corrected to CalEEMod default values and/or information consistent with the DEIR, CalEEMod modeling shows that the Project would create 9,147 $MTCO_2e$ in total construction emissions (see excerpts below) (attached Exhibit B, pp. 80).

[59] CAPCOA, *supra* fn. 51, p. 433.
[60] Calculated: (amortized construction emissions) + (mitigated operational emissions). *See* DEIR, Tbls. 4.6-3, 4.6-6, 4.6-8, 4.6-9.

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7378	9.6242	7.0050	0.0231	1.7325	0.2873	2.0197	0.6597	0.2713	0.9309	0.0000	2,156.0577	2,156.0577	0.3796	0.0000	2,165.5470
2022	0.6928	6.1074	6.1573	0.0223	0.9659	0.1706	1.1365	0.2604	0.1597	0.4201	0.0000	2,038.6846	2,038.6846	0.2768	0.0000	2,045.6053
2023	0.6361	5.1696	5.9320	0.0217	0.9628	0.1473	1.1101	0.2596	0.1379	0.3975	0.0000	1,989.0922	1,989.0922	0.2707	0.0000	1,995.8599
2024	0.6088	4.9533	5.8200	0.0215	0.9690	0.1330	1.1020	0.2612	0.1244	0.3856	0.0000	1,973.3223	1,973.3223	0.2704	0.0000	1,980.0817
2025	2.8775	2.3709	3.3285	0.0105	0.4957	0.0722	0.5679	0.1331	0.0676	0.2007	0.0000	956.1570	956.1570	0.1363	0.0000	959.5645
Maximum	**2.8775**	**9.6242**	**7.0050**	**0.0231**	**1.7325**	**0.2873**	**2.0197**	**0.6597**	**0.2713**	**0.9309**	**0.0000**	**2,156.0577**	**2,156.0577**	**0.3796**	**0.0000**	**2,165.5470**

When unsubstantiated parameters are similarly corrected, Alternative 1 would create 7,530 $MTCO_2e$ in total construction emissions (*see* excerpt below) (attached Exhibit D, pp. 5).

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6891	9.2138	6.6018	0.0211	1.5942	0.2857	1.8800	0.6224	0.2698	0.8922	0.0000	1,964.2836	1,964.2836	0.3697	0.0000	1,973.5251
2022	0.5878	5.2236	5.2907	0.0177	0.6501	0.1673	0.8174	0.1752	0.1567	0.3319	0.0000	1,610.7121	1,610.7121	0.2552	0.0000	1,617.0918
2023	0.5412	4.4999	5.1284	0.0174	0.6480	0.1449	0.7929	0.1746	0.1357	0.3103	0.0000	1,577.0696	1,577.0696	0.2508	0.0000	1,583.3394
2024	0.5177	4.2915	5.0570	0.0173	0.6521	0.1306	0.7827	0.1758	0.1222	0.2980	0.0000	1,568.2771	1,568.2771	0.2509	0.0000	1,574.5506
2025	1.7512	2.1185	2.9775	8.6300e-003	0.3367	0.0711	0.4078	0.0904	0.0665	0.1569	0.0000	778.3804	778.3804	0.1287	0.0000	781.5967
Maximum	**1.7512**	**9.2138**	**6.6018**	**0.0211**	**1.5942**	**0.2857**	**1.8800**	**0.6224**	**0.2698**	**0.8922**	**0.0000**	**1,964.2836**	**1,964.2836**	**0.3697**	**0.0000**	**1,973.5251**

Furthermore, when unsubstantiated parameters are similarly corrected, CalEEMod modeling shows that the Project would create 7,844 $MTCO_2e$/yr in annual operation emissions (*see* excerpt below) (attached Exhibit B, pp. 83).

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8320	0.0739	2.6144	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2795	55.2795	5.1100e-003	9.4000e-004	55.6861
Energy	0.0740	0.6534	0.4256	4.0300e-003		0.0511	0.0511		0.0511	0.0511	0.0000	2,022.8494	2,022.8494	0.0848	0.0281	2,033.3313
Mobile	1.0619	4.1723	13.5034	0.0571	5.9987	0.0412	6.0399	1.6064	0.0381	1.6445	0.0000	5,284.5138	5,284.5138	0.2066	0.0000	5,289.6791
Stationary	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Waste						0.0000	0.0000		0.0000	0.0000	87.5033	0.0000	87.5033	5.1713	0.0000	216.7858
Water						0.0000	0.0000		0.0000	0.0000	11.9448	184.0232	195.9680	1.2369	0.0311	236.1459
Total	**3.9945**	**5.0188**	**16.6115**	**0.0617**	**5.9987**	**0.1141**	**6.1128**	**1.6064**	**0.1111**	**1.7175**	**99.4481**	**7,559.0448**	**7,658.4929**	**6.7065**	**0.0601**	**7,844.0505**

When unsubstantiated input parameters are similarly corrected, CalEEMod modeling shows that Alternative 1 would create 4,064 $MTCO_2e$/yr in annual operation emissions (*see* excerpt below) (attached Exhibit D, pp. 8).

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8832	0.0739	2.6072	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2654	55.2654	5.0800e-003	9.4000e-004	55.6711
Energy	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	858.8680	858.8680	0.0348	0.0122	863.3584
Mobile	0.5194	2.0451	7.1587	0.0304	3.1252	0.0216	3.1468	0.8369	0.0200	0.8569	0.0000	2,809.7399	2,809.7399	0.1088	0.0000	2,812.4603
Stationary	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Waste						0.0000	0.0000		0.0000	0.0000	59.5596	0.0000	59.5596	3.5199	0.0000	147.5563
Water						0.0000	0.0000		0.0000	0.0000	8.1114	137.8097	145.9210	0.8407	0.0212	173.2657
Total	**2.4641**	**2.5355**	**9.9604**	**0.0328**	**3.1252**	**0.0675**	**3.1927**	**0.8369**	**0.0659**	**0.9028**	**67.6710**	**3,874.0620**	**3,941.7330**	**4.5110**	**0.0343**	**4,064.7342**

Thus, summing the amortized construction emissions over a 30-year period (consistent with SCAQMD guidance)[61] with annual operational emissions, the Project and Alternative 1 would generate 8,149 and 4,316 $MTCO_2e$/yr, respectively (*see* table below).

[61] SCAQMD (Oct. 2008) Interim GHG Significance Threshold Staff Proposal, p. 3-9, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf.

Annual GHG Emissions		
Project Phase	**Project ($MTCO_2e$/yr)**	**Alternative 1 ($MTCO_2e$/yr)**
Construction (amortized over 30 years)	305	251
Area	56	56
Energy	2,033	863
Mobile	5,290	2,812
Stationary	12	12
Waste	217	148
Water	236	173
Total	**8,149**	**4,315**
Total Disclosed in DEIR	5,150	2,852
Percent Underestimated	***37%***	***34%***

2.2.2 Service Population is Overestimated

A project's GHG efficiency level is a common GHG performance metric that relies on the project's 'service population.' According to CAPCOA's CEQA & Climate Change report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[62] Here, the DEIR suggests the Project would support a service population of 989 persons/jobs. However, this is based on unsubstantiated data that overestimates the service population for the Project.

The DEIR claims the proposed 250 housing units would serve 728 residents (a 2.912 average household size) (DEIR, p. 3-7), which is predicated on the City's 2012 passage of City Council Resolution No 2012-66 regarding park fees (DEIR, p. 3-7, 4.11-4),[63] and purportedly consistent with the data from SCAG (DEIR, p. 4.13-5 [citing 2016 data]). However, the most recent data released by the California Department of Finance ("DOF") shows that the City had an average household size of 2.59 as of January 2018,[64] which is consistent with the City's 2.6 average household size in 2018 reported by SCAG.[65] Absent adequate justification supported by substantial evidence, only 648 residents can be reasonably claimed by the proposed 250 housing units included in the Project and Alternative 1.[66]

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[62] CAPCOA *(*Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.

[63] *See also* City of Huntington Beach (1/2/19) Dept. of Community Development Fee Schedule, pp. 6, https://www.huntingtonbeachca.gov/files/users/planning/Planning-Fee-Schedule.pdf; Cal. Coastal Commission (4/27/19) Staff Report RE: Huntington Beach Certified LCP, p. 7 (noting City Council Resolution No 2012-66 relates to parkland dedication fee based upon development fee nexus study), https://documents.coastal.ca.gov/reports/2018/5/f9a/f9a-5-2018-report.pdf.

[64] DOF (May 2019) E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019, https://documents.coastal.ca.gov/reports/2018/5/f9a/f9a-5-2018-report.pdf.

[65] SCAG (May 2019) Profile of the City of Huntington Beach, p. 9, https://www.scag.ca.gov/Documents/HuntingtonBeach.pdf.

[66] Calc: (250 housing units) x (most accurate 2.59 average household size) = 647.5 residents, rounded up to 648.

Hence, only 648 residents can reasonably be expected to be served by the Project, for a total service population of 909 residents/jobs. Because Alternative 1 excludes the hotel/lodge component, only 648 residents are included in its service population.

2.2.3 The DEIR Fails to Conduct a Complete SCAQMD Multi-Tier Analysis

The DEIR utilizes SCAQMD Interim Tier 3 screening threshold of 3,000 $MTCO_2e$/yr to assess the GHG impact of the Project and Alternative 1 (DEIR, p. 4.6-15 – 4.6-16, 4.6-19 – 4.6-20). Because only the Project exceeds this threshold, the DEIR concludes only the Project to be significant and that Alternative 1 would be less than significant (DEIR, p. 4.6-26). However, the DEIR fails to conduct an analysis of the Project consistent with SCAQMD's multi-tiered approach.

i. Project Fails to Conduct a Per Capita Efficiency Analysis

In December 2008, SCAQMD released its *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans* report ("*Interim Thresholds*") that proposed a multi-tiered approach for evaluating a project's GHG impacts, which was subsequently clarified, where SCAQMD proposed for non-exempt projects (i.e., Tier 1) not consistent with a qualified CAP (i.e., Tier 2), lead agencies should compare a project's GHG emissions to numeric screening thresholds (i.e., Tier 3).[67] *Where a project's emissions exceed the screening-level threshold, a more detailed review of the project's GHG emissions is warranted using SCAQMD's proposed per capita efficiency targets* (i.e., Tier 4). For project-level analyses, SCAQMD proposed a 2020 and 2035 efficiency target of 4.8 and 3.0 $MTCO_2e$/yr per service population ("$MTCO_2e$/yr/sp"), respectively.

Here, despite acknowledging the Project would exceed SCAQMD's Tier 3 screening thresholds (DEIR, p. 4.6-23), the DEIR fails to conduct a Tier 4 analysis as recommended by SCAQMD.

In accordance with SCAQMD's Tier 4 analysis, we assessed the Project and Alternative 1's efficiency level by taking the annual emissions, dividing it by the appropriate service population, and comparing it to SCAQMD's 2020 and 2035 efficiency thresholds. The below table shows the GHG efficiency level for the Project and Alternative 1 based on both the DEIR's CalEEMod modeling and overestimated service population, and SWAPE's updated modeling.

[67] SCAQMD (9/28/10) Minutes for the GHG CEQA Significance Working Group # 15, p. 2, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf); *see also* SCAQMD (12/5/08) Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, p. 5, 6, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2; SCAQMD (Oct. 2008) Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf.

Annual GHG Emissions Efficiency, Exceedances Under SCAQMD Tier 4 Thresholds				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
Annual Emissions ($MTCO_2e/yr$)	5,150	8,149	2,852	4,315
Service Population	989	909	728	648
Emissions Per Service Population ($MTCO_2e/yr/sp$)	5.21	8.96	3.92	6.66
4.8 $MTCO_2e/yr/SP$ (2020 SCAQMD Efficiency Threshold) Exceeded?	**Yes**	**Yes**	No	**Yes**
3.0 $MTCO_2e/yr/SP$ (2035 SCAQMD Efficiency Threshold) Exceeded?	**Yes**	**Yes**	**Yes**	**Yes**

As shown in the above table, based on the DEIR's flawed estimate of annual GHG emissions (i.e., 5,150 $MTCO_2e/yr$) and service population (i.e., 989 residents/jobs), the Project would result in a 5.21 $MTCO_2e/yr/sp$ efficiency level that exceeds both SCAQMD's 4.8 and 3.0 $MTCO_2e/yr/sp$ target for 2020 and 2035, respectively. Based on SWAPE's corrected modeling of annual GHG emissions that includes accurate data (i.e., 8,149 $MTCO_2e/yr$) and service population (i.e., 909 residents/jobs), the Project would be even more inefficient at 8.96 $MTCO_2e/yr/sp$. Based on SWAPE's corrected modeling, Alternative 1 would generate 4,315 $MTCO_2e/yr$ and have a 648 service population for an efficiency level of 6.66 $MTCO_2e/yr/sp$, which exceeds SCAQMD's Tier 3 screening threshold (i.e., 3,000 $MTCO_2e/yr$ for mixed use projects) and Tier 4 efficiency thresholds of 4.8 and 3.0 $MTCO_2e/yr/sp$ for 2020 and 2035 target years, respectively.

Hence, using SWAPE's modeling, ***both*** the Project and Alternative 1 have a significant GHG impact because they ***both*** exceed SCAQMD's Tier 3 screening threshold and Tier 4 efficiency threshold for 2020 and 2035 target years. Similarly, using the DEIR's modeling, the Project has a significant GHG impact because its emissions exceed SCAQMD's Tier 3 screening threshold and Tier 4 efficiency threshold for 2020 and 2035 target years. The DEIR fails to justify why it did not conduct a Tier 4 analysis as recommended in SCAQMD's Interim Thresholds.

ii. Bright-Line Thresholds & Efficiency Targets Are Routinely Used Throughout the State

Notwithstanding SCAQMD not officially adopting the Tier 3 and Tier 4 thresholds, they have been used routinely by Los Angeles and Orange County municipalities, such as Los Angeles, [68] Burbank,[69] Fountain Valley,[70] Buena Park,[71] and Costa Mesa.[72] Unlike the 2016 RTP/SCS and 2017 Scoping Plan performance metrics, which are intended for state/regional or plan-level analysis, SCAQMD's Tier 3 and Tier 4 thresholds are designed for project-level analysis within the SCAQMD air basin, such as the Project and Alternative 1. Although SCAQMD's Tier 3 and Tier 4 thresholds were crafted before more aggressive actions taken at the state level (i.e., SB 32, CARB's 2017 Scoping Plan), similar bright-line/efficiency thresholds have been adopted by multiple air districts in recent years, such as the Sacramento Metropolitan Air Quality Management District ("SMAQMD"),[73] Bay Area Air Quality Management District ("BAAQMD"), [74] Placer County Air Pollution Control District ("PCAPCD"),[75] and San Luis Obispo Air Pollution Control District ("SLOAPCD")[76] (*see* table below).

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[68] *See e.g.,* 6516 W. Selma Ave. Project (Jun. 2014) MND, Appendix A, pp. 102-104 (utilizing Tier 4 analysis and noting "SCAQMD's draft thresholds have also been utilized for other projects in the City."), http://clkrep.lacity.org/onlinedocs/2008/08-0887-S1_misc_7_02-22-2017.pdf; Lizard Hotel Project (Jan. 2017) Draft EIR, pp. 23-24 (utilizing SCAQMD's Tier 4 analysis), https://planning.lacity.org/eir/SpringStHotel/DEIR/DEIR%20Sections/Spring%20St%20Hotel%20IV.E%20Greenhouse%20Gas%20Emissions.pdf; Glassell Park Residential Project (Jan. 2019) MND, pp. 164-165 (applying SCAQMD's Tier 3 and Tier 4 threshold), https://planning.lacity.org/pdiscaseinfo/Home/GetDocument/MGEwYjZjZjMtNTI3MS00YmYxLTlmMmYtMjk3OTMyNTljYzVm0; Target at Sunset & Western Project (Oct. 2015) Addendum to Certified EIR, pp. 28-31 (applying Tier 3 and Tier 4 thresholds), http://clkrep.lacity.org/onlinedocs/2016/16-0033_misc_1_01-08-2016.0001.pdf; Reef Project (Sep. 2015) Draft EIR, pp. 23-25 (applying Tier 3 and Tier 4 thresholds), https://planning.lacity.org/eir/theReef/deir/DEIR%20Sections/IV.G.%20Greenhouse%20Gases.pdf.

[69] SCAQMD (9/21/12) Review of the Draft EIR for the Burbank 2035 Project, pp. 4, http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2012/september/burbank-2035.pdf.

[70] Fountain Valley Crossing Specific Plan Project (Jan. 2017) Partially Recirculated Draft EIR, p. 3.4-13, https://www.fountainvalley.org/DocumentCenter/View/6445/34_FV-XRoads_GHG_Recirc-DEIR?bidId=.

[71] Buena Park Mixed-Use Project (June 2014) Draft EIR, Appendix A, pp. 60, http://www.buenapark.com/home/showdocument?id=6878.

[72] Mesa Verde In-Line Shop Project (Mar. 2017) Draft IS/ND, pp. 61, http://ftp.costamesaca.gov/costamesaca/environmentalbulletin/DevelopmentReview1555AdamsAve/NoticeofIntent.pdf.

[73] SMAQMD (May 2018) Guide to Air Quality Assessment in Sacramento County, p. 6-1 – 6-3, 6-10 – 6-12 (1,100 and 10,000 $MTCO_2e$/yr for non-stationary and stationary operational emissions, respectively), http://www.airquality.org/LandUseTransportation/Documents/Ch6GHGFinal5-2018.pdf; *see also* SMAQMD (May 2015) Thresholds of Significance Table, http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable5-2015.pdf.

[74] BAAQMD (May 2017) CEQA Air Quality Guidelines, p. 2:1-4 (1,100 $MTCO_2e$/yr bright-line or 4.6 $MTCO_2e$/yr/SP for non-stationary sources, and 10,000 $MTCO_2e$/yr for stationary sources), https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[75] PCAPCD (Oct. 2016) CEQA thresholds of Significance Justification Report, pp. E-2, 2, 17-22 (10,000 $MTCO_2e$/yr bright-line threshold for all projects, and various residential and non-residential efficiency thresholds depending on urban or rural context), https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF; *see also* PCAPCD (2020) CEQA Thresholds Webpage, https://www.placerair.org/1804/CEQA-Thresholds.

[76] SLOAPCD (Mar. 28, 2012) GHG Threshold and Supporting Evidence, p. 5, 25-30, 42 (1,150 $MTCO_2e$/yr bright-line or 4.9 $MTCO_2e$/yr/SP for residential/commercial sources, and 10,000 $MTCO_2e$/yr for industrial sources), https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Greenhouse%20Gas%20Thresholds%20and%20Supporting%20Evidence%204-2-2012.pdf.

Current GHG Thresholds from Other Air Districts

SMAQMD (May 2018) Guide to Air Quality Assessment

Land Development and Construction Projects		
	Construction Phase	Operational Phase
Greenhouse Gas Emissions (GHG) Thresholds		
GHG as CO2e	1,100 metric tons/year	1,100 metric tons/year

Stationary Source Only		
	Construction Phase	Operational Phase
Greenhouse Gas Emissions (GHG) Thresholds		
GHG as CO2e	1,100 metric tons/year	10,000 metric tons/year

1) Construction phase of all project types – 1,100 MT CO_2e/yr.
2) Operational phase of a land development project – 1,100 MTCO_2e/yr.
3) Stationary source operational emissions – 10,000 MT CO_2e/yr.

BAAQMD (May 2017) CEQA Air Quality Guidelines

GHGs – Projects other than Stationary Sources	Compliance with Qualified GHG Reduction Strategy OR 1,100 MT of CO_2e/yr OR 4.6 MT CO_2e/SP/yr (residents+employees)
GHGs –Stationary Sources	10,000 MT/yr

While providing 10,000 MTCO_2e/yr for stationary-source projects, other projects (e.g., residential, commercial, public land uses):

1) **CAP**: Compliance with a qualified GHG Reduction Strategy; or
2) **Bright Line**: Annual emissions less than 1,100 MTCO_2e/yr; or
3) **Efficiency Level**: 4.6 MTCO_2e/sp/yr (residents + employees).

SLOAPCD (Mar. 2012) GHG Thresholds and Supporting Evidence

GHG Emissions Threshold Summary	
Residential and Commercial Projects	**Compliance with Qualified GHG Reduction Strategy** OR **Bright-Line Threshold of 1,150 MT of CO_2e/yr.** OR **Efficiency Threshold of 4.9 MT CO_2e/SP*/yr.**
Industrial (Stationary Sources)	**10,000 MT of CO_2e/yr.**

1) **CAP**: Consistency with qualitative reduction strategies (e.g., Climate Action Plans).
2) **Bright-Line Threshold**: 1,150 MTCO_2e/yr after inclusion of emission-reducing features of a proposed project, those still exceeding the threshold would have to reduce their emissions below that level to be considered less than significant.
3) **Efficiency-Based Threshold**: 4.9 MTCO_2e/sp/yr dependent on per capita basis for residential projects or the sum of jobs and residents for mixed-use projects.

PCAPCD (Oct. 2016) CEQA Threshold Significance Justification Report

1) **De Minimis Level** for the operational phases of 1,100 MT CO2e/yr.
2) **Efficiency Matrix** for the operational phase of land use developments that exceed the De Minimis Level that is dependent on their location (urban v. rural), whether its residential in nature (e.g., single-family, condo, apartment) or non-residential (e.g., general commercial, office, industrial), and service population (i.e., per capita inclusive of residents and jobs for residential projects, or 1,000 square feet of non-residential development).
3) **Bright-line Threshold** of 10,000 MT CO2e/yr for the construction and operational phases of land use projects as well as the stationary source projects.

Bright-line Threshold 10,000 MT CO2e/yr			
Efficiency Matrix			
Residential		Non-residential	
Urban	Rural	Urban	Rural
(MT CO2e/capita)		(MT CO2e/1,000sf)	
4.5	5.5	26.5	27.3
De Minimis Level 1,100 MT CO2e/yr			

The above table of actions taken by other air districts, which are consistent with SCAQMD Interim Thresholds, evidences broad consensus among these air districts of what constitutes best practices in CEQA analysis and regulatory controls over GHG emissions on local land use projects. Here, however, the DEIR departs from the SCAQMD-recommended approach by applying the Tier 3 thresholds to inaccurate modeling and fails to conduct any Tier 4 analysis, despite the Project admittedly exceeding the 3,000 $MTCO_2e$/yr bright-line threshold. This departure is inconsistent with the bright-line/efficiency threshold approach adopted by numerous air districts.

2.2.4 Failure to Consider Performance-Based Standards Under SCAG's 2016 RTP/SCS

Here, relying on the consistency of non-specific and non-binding goals and policies (discussed *supra* section 2.1.1), the DEIR finds that the Project and Alternative 1 would not conflict with the implementation of SB 375 or SCAG's 2016 RTP/SCS (DEIR, p. 4.6-27 – 4.6-29, 4.6-32 – 4.6-34). However, the DEIR fails to consider if the Project or Alternative 1 is meeting any of the specific performance-based goals underlying SCAG's 2016 RTP/SCS and SB 375, such as: i) per capita emission targets, or ii) daily vehicles miles traveled ("VMT") per capita benchmarks.

i. SB 375 Per Capita GHG Emission Goals

As previously mentioned, SB 375 was signed into law in September 2008 to enhance the state's ability to reach AB 32 goals by directing CARB to develop regional 2020 and 2035 GHG emission reduction targets for passenger vehicles (autos and light-duty trucks). In September 2010, CARB adopted regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035, assigning SCAG the targets of an eight percent reduction by 2020 and a 13 percent reduction by 2035. This goal is reflected in SCAG's 2016 RTP/SCS,[77] in which the 2016 RTP/SCS Program EIR ("PEIR") determined that the per capita emissions were 23.8 pounds per day ("lbs/day") in 2005, and that SCAG's 2016 RTP/SCS plan would achieve per

[77] SCAG (Apr. 2016) 2016 RTP/SCS, p. 8, 15, 153, 166, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

capita emissions of 21.4 lbs/day in 2020 (i.e., a reduction of 8 percent from 2005 levels) and 19.5 lbs/day in 2035 (i.e., a reduction of 18 percent from 2005 levels) (*see* excerpt below).[78]

TABLE 3.8.4-3
SB 375 ANALYSIS

	2005 (Baseline)	2020 (Plan)	2035 (Plan)	2040 (Plan)
Resident population (per 1,000)	17,161	19,060	21,475	22,116
CO_2 emissions (per 1,000 tons)	204.0*	203.6**	206.0**	203.0**
Per capita emissions (pounds/day)	23.8	21.4	19.5	18.7
% difference from Plan (2020) to Baseline (2005)				–8%*
% difference from Plan (2035) to Baseline (2005)				–18%***
% difference from Plan (2040) to Baseline (2005)				–22%***

NOTE:
* Based on EMFAC2007
** Based on EMFAC2014
***Included off-model adjustments for 2035 and 2040
SOURCE:
SCAG modeling, 2015
Southern California Association of Governments. 5 November 2015. *Item No. 1 Staff Report: 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) – Proposed Major Components*. Available at: http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf

In March 2018, CARB adopted updated targets requiring a 19 percent decrease in VMT for the SCAG region by 2035. This goal is reflected in SCAG's Draft 2020 RTP/SCS,[79] in which the 2020 RTP/SCS Draft PEIR updates the per capita emissions to 21.3 lbs/day in 2020 and 18.8 lbs/day in 2035 (*see* excerpt below).[80]

Table 3.8-10
SB 375 Analysis

	2005 (Baseline)	2020 (Plan)	2035 (Plan)
Resident population (per 1,000)	17,161	19,194	21,110
CO2 emissions (per 1,000 tons)	204.0/a/	204.5/b/	198.6/b/
Per capita emissions (pounds/day)	23.8	21.3	18.8
% difference from Plan (2020) to Baseline (2005)			–8%
% difference from Plan (2035) to Baseline (2005)			–19%/c/

Note:
/a/ Based on EMFAC2007
/b/Based on EMFAC2014 and SCAG modeling, 2019.
/c/ Includes off-model adjustments for 2035 and 2045
Source: SCAG modeling, 2019.
http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf

In order to evaluate consistency with this SB 375 objective and 2016 RTP/SCS performance-based goal, SWAPE calculated and evaluated the Project's and Alternative's per-capita CO_2 emissions from passenger and light duty vehicles (calculations attached hereto as Exhibit E). First, total annual GHG mobile emissions were multiplied by the percentage of auto and light-duty truck fleet mix, then

[78] SCAG (11/24/15) 2016 RTP/SCS Draft PEIR, p. 3.8-37 – 3.8-38, http://scagrtpscs.net/Documents/2016/peir/draft/2016dPEIR_Complete.pdf.
[79] SCAG (11/7/19) Draft 2020 RTP/SCS, p. 9, 48, 138, https://www.connectsocal.org/Documents/Draft/dConnectSoCal_Draft-Plan.pdf.
[80] SCAG (Nov. 2019) 2020 RTP/SCS Draft PEIR, p. 3.8-73 – 3.8-74, https://www.connectsocal.org/Documents/PEIR/draft/dPEIR_ConnectSoCal_Complete.pdf.

converted into total lbs/day, then divided by the appropriate service population. The below table shows the per capita emissions for the Project and Alternative 1 based on both the DEIR's modeling and SWAPE's updated modeling (see table below and Exhibit E attached hereto).

CO_2e Per Capita Emissions from Passenger & Light-Duty Trucks, Exceedances under RTP/SCS Performance-Based SB 375 Goals				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
Annual Mobile Emissions ($MTCO_2e$/yr)	3,560.27	5,289.68	1,905.27	2,812.46
Passenger & Light-Duty Fleet Mix (%)	97.08%	81.98%	97.90%	81.89%
Daily CO_2e Emissions (lbs/day)	20,876.15	26,193.60	11,266.83	13,910.81
Service Population	989	909	728	648
Per Capita Emissions (lbs/day)	**21.11**	**28.82**	**15.48**	**21.47**
21.3 lbs/day/sp (2020 Goal) Exceeded?	No	**Yes**	No	**Yes**
18.8 lbs/day/sp (2035 Goal) Exceeded?	**Yes**	**Yes**	No	**Yes**

As shown in the above table, based on the DEIR's flawed CalEEMod modeling and overestimated service population, the Project would result in 21.11 pounds per day per service population (lbs/day/sp) emissions from passenger and light-duty truck vehicles. This exceeds SCAG's 2035 target of 18.8 lbs/day/sp emission target and, therefore, indicates that the Project is inconsistent with SB 375 and SCAG's RTP/SCS. These exceedances would be even worse if the DEIR used a more accurate service population of 909 residents and employees, which would result in a 22.97 lbs/day/sp emission level (20,876.15 lbs/day divided by 909 service population). Moreover, when utilizing SWAPE modeling with an updated service population, the Project would result in 28.82 lbs/day/sp emissions that exceeds both of SCAG's 2020 and 2035 targets.

As shown in the above table, based on the DEIR's flawed modeling, Alternative 1 would result in 15.48 lbs/day/sp emissions, which is below both SCAG's 2020 and 2035 goal. However, when utilizing SWAPE's modeling with a more accurate service population, Alternative 1 would result in 21.47 lbs/day/sp emissions that exceeds both of SCAG's 2020 and 2035 goals.

Hence, both the Project and Alternative 1 exceed the RTP/SCS performance-based goals, which indicates that both the Project and Alternative 1 conflict with the 2016 RTP/SCS and SB 375.

ii. SB 375 RTP/SCS Daily VMT Per Capita Target

A "significant metric since the passage of SB 375" has been the reduction of vehicle miles traveled ("VMT") from automobiles and light trucks per capita.[81] According to the SCAG, the land use strategies

[81] SCAG (Ap. 2016) 2016 RTP/SCS, Appendix Performance Measures, p. 12, 16, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_PerformanceMeasures.pdf; *see also* 2016 RTP/SCS, p. 160, 180, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

outlined in the RTP/SCS are designed to reduce GHGs and VMTs both regionally and county-wide, and provides projected VMT targets in the form of performance-based objectives.[82]

Under the SCAG's 2016 RTP/SCS, daily VMT per capita should decrease from 22.8 VMT in 2012 to 20.5 VMT by 2040 for the entire SCAG region. For Orange County specifically, daily VMT per capita should drop from 23.8 to 21.4 VMT during that same period. Under the SCAG's Draft 2020 RTP/SCS, daily VMT per capita in the SCAG region should decrease from 23.2 VMT in 2016 to 21.0 VMT by 2045 with daily VMT per capita in Orange County should decrease from 24.1 to 22.2 VMT during that same period.[83]

Here, however, the DEIR fails to consider any of the abovementioned performance-based VMT targets. In order to evaluate consistency with the RTP/SCS's performance-based VMT reduction targets, SWAPE calculated and evaluated the Project's and Alternative 1's VMT from passenger and light duty vehicles (calculations attached hereto as Exhibit E). First, annual VMTs from passenger automobile and light-duty vehicle were calculated by the CalEEMod fleet mix, converted into daily VMT, and divided by the appropriate service population. The below table shows the daily VMT per capita for the Project and Alternative 1 based on both the DEIR's CalEEMod modeling and SWAPE's updated modeling (see table below and Exhibit F attached hereto).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under RTP/SCS Performance-Based SB 375 Target				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
Annual VMT from Auto & Light-Duty Vehicles	14,302,271	12,966,100	8,046,249	6,747,376
Daily VMT from Auto & Light-Duty Vehicles	39,184	35,524	22,045	18,486
Service Population	989	909	728	648
Daily VMT Per Capita	39.62	39.08	30.28	28.53
2016 RTP/SCS Benchmarks, SCAG-Wide				
22.8 VMT (2012 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
20.5 VMT (2040 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2016 RTP/SCS Benchmarks, Orange County				
23.8 VMT (2012 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.4 VMT (2040 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2020 RTP/SCS Benchmarks, SCAG-Wide				
23.2 VMT (2016 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.0 VMT (2045 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2020 RTP/SCS Benchmarks, Orange County				
24.1 VMT (2016 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
22.2 VMT (2045 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**

[82] *Ibid*, p. 167.
[83] SCAG (11/7/19) Draft 2020 RTP/SCS, p. 132, https://www.connectsocal.org/Documents/Draft/dConnectSoCal_Draft-Plan.pdf.

As shown in the above table, based on the DEIR's CalEEMod modeling and service population, the Project would result in 39.62 daily VMT per capita from passenger auto and light-duty truck vehicles. This exceeds the SCAG targets under the 2016 RTP/SCS, including the 22.8 daily VMT 2012 baseline benchmark and 20.5 daily VMT 2040 target provided in the RTP/SCS. Furthermore, the Project's 39.62 daily VMT per capita exceeds baseline and target year benchmarks specific to Orange County under the 2016 RTP/SCS. Similarly, the Project would exceed all SCAG and Orange County specific benchmarks and targets under SCAG's Draft 2020 RTP/SCS. Thus, despite unsubstantiated modeling and a seemingly overestimated service population, the Project would exceed both the 2012 and 2016 baseline VMT per capita values as well as both the 2040 and 2045 VMT per capita targets for both Orange County and the SCAG region as a whole.

Similarly, based on the DEIR's modeling and service population, Alternative 1 would result in a 30.28 daily VMT per capita from passenger auto and light-duty truck vehicles, which exceed all SCAG and Orange County specific benchmarks under both SCAG's 2016 RTP/SCS and its Draft 2020 RTP/SCS.

Hence, ***both*** the Project and Alternative 1 exceed the RTP/SCS performance-based daily VMT per capita benchmarks, which indicates that ***both*** the Project and Alternative 1 conflict with the 2016 RTP/SCS and SB 375.

2.2.5 Failure to Consider Performance-Based Standards Under CARB's 2017 Scoping Plan

Similarly, the DEIR also fails to consider performance-based measures proposed by CARB.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 Scoping Plan explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[84] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[85] By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2026 (Project operational year), 2030 (target years under SB 32), and 2050 (target year under Executive Order S-3-05) (see table below and Exhibit G attached hereto).

[84] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 98, 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

[85] CARB (Jan. 2019) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals ("Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions"), Excel Sheet "Readme", https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

2017 Scoping Plan Daily VMT Per Capita						
	Orange County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	3,014,677	73,439,010.51	24.36	37,335,085	836463980.5	22.40
2026	3,368,151	77,556,376.65	23.03	42,655,695	935625476	21.93
2030	3,433,510	76,760,734.64	22.36	43,939,250	957178153.2	21.78
2050	3,615,935	74,382,861.06	20.57	49,077,801	1068767247	21.78

The below table compares the 2017 Scoping Plan daily VMT per capita values against the daily VMT per capita values for the Project and Alternative 1 based on both the DEIR's CalEEMod modeling and SWAPE's updated modeling (see table below and Exhibit H attached hereto).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks				
Sources	Project		Alternative 1	
	DEIR Modeling	SWAPE Modeling	DEIR Modeling	SWAPE Modeling
Annual VMT from Auto & Light-Duty Vehicles	14,302,271	12,966,100	8,046,249	6,747,376
Daily VMT from Auto & Light-Duty Vehicles	39,184	35,524	22,045	18,486
Service Population	989	909	728	648
Daily VMT Per Capita	39.62	39.08	30.28	28.53
2017 Scoping Plan Benchmarks, Statewide				
22.40 VMT (2010 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.93 VMT (2026 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.77 VMT (2050 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2017 Scoping Plan Benchmarks, Orange County Specific				
24.36 VMT (2010 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
23.02 VMT (2026 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
22.35 VMT (2030 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
20.57 VMT (2050 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**

As shown above, both the DEIR's and SWAPE's modeling show that the Project and Alternative 1 exceed the 2017 Scoping Plan projections for 2010, 2026, 2030, and 2050. Because *both* the Project and Alternative 1 exceed the 2017 Scoping Plan performance-based daily VMT per capita projections, *both* the Project and Alternative 1 conflict with the 2017 Scoping Plan and SB 375.

ii. Total Vehicle VMT Per Capita Benchmarks per SB 743

Also discussed in the 2017 Scoping Plan, Senate Bill 743 ("SB 743") calls for an update to the metric of transportation impact under CEQA from level of service ("LOS") to VMT, which will be implemented statewide on July 1, 2020 and will play "an important role in creating the additional GHG reductions

needed beyond SB 375 across the State."[86] In December 2018, the Office of Planning and Research ("OPR") developed a "Technical Advisory" to help local agencies, planners, land use officials, and CEQA practitioners to assess VMT impacts under SB 743, including approaches to significance thresholds and examples of VMT mitigation under CEQA.[87] Therein, the Technical Advisory recommends each component of a mixed-use project be independently assessed for significance, but that a lead agency may consider only the project's dominant use.[88]

For residential project components, the Technical Advisory recommends a significance threshold of at least 15 percent below existing regional or city VMT per capita.[89] Additionally, when considering all vehicle types (i.e., VMTs beyond just passenger and light-duty trucks), the Technical Advisory recommends using consistent threshold to ensure an apples-to-apples comparison.[90] Within its Supporting Calculations for 2017 Scoping Plan-identified VMT reductions, CARB identifies the population and daily VMT from all vehicles at the county level for each year between 2010 to 2050 under a "baseline scenario," which includes VMT projections under SCAG's 2016 RTP/SCS (as previously discussed).[91] The Technical Advisory has determined that SB 743 thresholds can be calculated by dividing the projected daily VMT of all vehicles by the population and reducing this value by 15%.[92] Consistent with this methodology, the below table identifies said thresholds for Orange County in 2026 (Project operational year), 2030 (target years under SB 32), and 2050 (target year under Executive Order S-3-05) (see table below and Exhibit I attached hereto).

2017 Scoping Plan SB 743 Total Daily VMT Per Capita Thresholds (Orange County)				
Year	**Population**	**Total VMT Baseline**	**VMT Per Capita**	**Threshold (-15%)**
2026	3,368,151	82,919,897	24.62	20.93
2030	3,433,510	82,483,181	24.02	20.42
2050	3,615,935	81,654,451	22.58	19.19

Here, the dominant use for the proposed Project is single family housing ("SFH"). We calculated the SFH VMT per capita by converting the total annual SFH VMTs and dividing them by the service population (i.e., residents). We compare the Project's and Alternative 1's SFH VMT per capita, based on both the DEIR's CalEEMod modeling and SWAPE's updated modeling, against the above referenced SB 743 thresholds (see table below and Exhibit J attached hereto).

[86] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 76, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.
[87] *Ibid*., p. 102; *see also* OPR (2020) Transportation Impacts (SB 743) Webpage, http://www.opr.ca.gov/ceqa/updates/sb-743/.
[88] OPR (Dec. 2018) Technical Advisory on Evaluating Transportation Impacts in CEQA ("Technical Advisory"), p. 17, http://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.
[89] *Ibid*., p. 15.
[90] *Ibid*., p. 5.
[91] CARB (Jan. 2019) Supporting Calculations, Excel Sheet "Readme", http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf.
[92] OPR Technical Advisory, *supra,* fn. 88, p. 17.

Daily Residential VMT Per Capita from All Vehicles, Exceedances under 2017 Scoping Plan Performance-Based SB 743 Thresholds				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
SFH Annual VMT	7,290,738	7,389,591	8,003,458	8,009,560
SFH Daily VMT	19,975	20,245	21,927	21,944
Service Population (residents)	728	648	728	648
SFH Daily VMT per Capita	27.44	31.24	30.12	33.86
2017 Scoping Plan Threshold, Orange County				
20.93 VMT (2026 Threshold) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
20.42 VMT (2030 Threshold) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
19.20 VMT (2050 Threshold) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**

As shown above, the Project and Alternative 1 exceed the applicable 2017 Scoping Plan thresholds when utilizing both the DEIR's modeling and SWAPE's updated modeling. Because the residential component is the dominate use for the Project and Alternative 1 and ***both*** exceed the 2017 Scoping Plan performance-based thresholds, ***both*** the Project and Alternative 1 conflict with the 2017 Scoping Plan and SB 743.

2.2.6 Failure to Demonstrate Consistency with Evolving Scientific Knowledge and Regulatory Schemes

CEQA Guidelines § 15064.4 states that a lead agency's GHG analysis shall be "based to the extent possible on scientific and factual data" (subd. (a)), "must reasonably reflect evolving scientific knowledge and state regulatory schemes" (subd. (b)), and "should explain the limitations of the particular model or methodology used" (subd. (c)).

Here, as discussed above, the DEIR fails to explain the limitations of its qualitative analysis that relies on consistency with unmonitored CAPs and non-CAP plans that are not specific to or binding on local land use projects. Furthermore, the DEIR fails to address inconsistencies with policies, measures, and other provisions contained in SCAG's RTP/SCS, CARB's 2017 Scoping Plan, and the City's GGRP. The DEIR's quantitative analysis also utilizes unsubstantiated data in its CalEEMod modeling and truncates its SCAQMD multi-tier threshold analysis. Moreover, the DEIR fails to include the quantitative performance-based standards contained in SCAQMD's multi-tier threshold analysis, SCAG's RTP/SCS, and CARB's 2017 Scoping Plan. Thus, the DEIR fails to consider whether the Project or Alternative 1 are consistent with the performance-based standards specified by SCAQMD, SCAG, or CARB in their respective plans. As shown above (*supra* sections 2.2.4, 2.2.5), the Project and Alternative 1 fail to meet performance-based goals and targets outlined in the 2016 RTP/SCS or 2017 Scoping Plan, which provides substantial evidence that the Project and Alternative 1 are inconsistent with said plans and the State's long-term climate goals.

Collectively, the flaws in the DEIR's GHG analysis—which are left unresolved in the Response to Comments ("RTP")—understates the severity of the Project's and Alterative 1's GHG impact. We recommend that a revised GHG analysis be completed in an updated DEIR that adequately evaluates

both the Project and Alternative 1's GHG impacts. If the revised GHG analysis concludes that the Project and Alterative 1 will result in a significant impact, as demonstrated in this letter, the GHG analysis should consider all feasible mitigation measures, as included below.

3. Mitigation Measures

A key component of CEQA involves avoiding or significantly reducing environmental impacts through project alternatives and mitigation.[93] Here, to mitigate air quality and GHG impacts for the *Project*, the DEIR proposes eight Regulatory Requirements ("RR") (i.e., RR AQ-1, RR GHG-1 through 7), five Mitigation Measures ("MM") (i.e., MM AQ-1, MM GHG-1 through 5), and two Project Design Features ("PDF") (i.e., PDF HWQ-1, use of heat reflective materials) (DEIR, p. 1-10, 1-15 – 1-16, 4.2-42, 4.6-34 – 4.6-36; RTC, p. 3-42, 4.1 – 4.1-3, 4-10). For *Alternative 1*, because it incorrectly determined it would have less than significant GHG impacts (discussed *supra* section 2), the DEIR proposes only three RRs (i.e., RR AQ-1, RR GHG-1 and -2), two MM (i.e., MM AQ-1, MM GHG-2), and one PDF (i.e., PDF HWQ-1) (*id.*). However, as discussed below, these proposed actions are inadequate under CEQA.

3.1 Failure to Demonstrate Additionality Beyond Regulatory Requirements

The DEIR relies heavily on RRs as mitigation, especially for the Project's GHG impacts (see below) (DEIR, p. 1-10, 1-15 – 1-16) (emphasis added).

- **RR AQ-1 SCAQMD Rule 403:** The construction of the proposed Project or Alternative 1 shall comply with all the fugitive dust control measures listed within *SCAQMD Rule 403*. These may include the use of water controls, vehicle speed limits, cleanup of dirt track-out from the site, signage with contact information of the site supervisor and other measures.
- **RR GHG-1:** The Project shall be designed in accordance with the applicable *Title 24 Energy Efficiency Standards* for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6). These standards are updated, nominally every three years, to incorporate improved energy efficiency technologies and methods. The Building Manager, or designee shall ensure compliance prior to the issuance of each building permit. The 2019 *Title 24 Energy Efficiency standards* for residential uses require that solar photovoltaic electricity be installed equal to the amount used annually.
- **RR GHG-2:** Projects shall be designed in accordance with the applicable *California Green Building Standards (CALGreen) Code* (24 CCR 11). The Building Manager, or designee shall ensure compliance prior to the issuance of each building permit. These requirements include but are not limited to:
    - Install electric vehicle and plug-in hybrid vehicle charging stations to reduce emissions from vehicle trips, as detailed under Section A4.106.8 for residential uses and 5.106.5.3 for nonresidential uses within the *2016 California Green Building Standards Code*. This Section facilitates future installation and use of electric vehicle chargers.
    - Provide designated parking for any combination of low-emitting, fuel efficient and carpool/vanpool vehicles under *Section 5.106.5.2*.

[93] CEQA Guidelines §§ 15002(a), 15003.

    - During the construction phase, all construction will comply with the *CalGreen Code* through recycling and reuse of at least 65 percent of the nonhazardous construction debris from the site.
- **RR GHG-3:** For the proposed Project, the hotel shall develop a solid waste recycling program that is consistent with the goals established by *Assembly Bill 323*.
- **RR GHG-4:** The proposed Project shall install water efficient interior (i.e., showers, faucets, toilets) and exterior fixtures (i.e., decorative amenities) per Section 4.303 and 4.304 of the *CALGreen Code* for residential uses.
- **RR GHG-5:** The proposed Project shall install water efficient interior (i.e., showers, faucets, toilets) and exterior fixtures (i.e., decorative amenities) per Section 5.303 and 5.304 of the *CALGreen Code* for nonresidential uses.
- **RR GHG-6:** The proposed Project shall install electric vehicle charging for new construction per Section 4.106.4 and 5.106.5.3 of the *CALGreen Code* for residential and nonresidential uses, respectively.
- **RR GHG-7:** The proposed Project shall include bicycle racks and pedestrian amenities to encourage non-automotive transportation for nonresidential uses.

As the above list shows, the proposed RRs are predominantly focused on compliance with existing laws and regulations involving building efficiency and conservation measures. Thus, it is unclear whether these RR's are *in addition* to what is otherwise required by existing local, regional, and statewide regulations.[94] This should be clarified in an updated EIR that first models the Project and Alternative 1 consistent with the existing baseline (e.g., Title 24 building standards, LCFS standards, etc.), then models Project and Alternative 1 with proposed substantiated mitigaiton measures (i.e., measures beyond what is already required at the existing baseline).

Furthermore, the majority of the RRs listed above are unrelated to the Project or Alternative 1's primary source of GHG emissions (i.e., mobile emissions), as indicated by both the DEIR and SWAPE's models.[95] Without including mitigation measures to address mobile emissions, the DEIR fails to include or consider measures targeting the primary source of GHG emissions.

3.2 Reliance on Mitigation Measures without Monitoring and Enforcement

Under CEQA Guidelines, mitigation measures include steps to reduce, minimize, rectify, compensate, or avoid impacts.[96] Where mitigation measures are available, each should be discussed and the basis for selecting a particular measure should be identified.[97] In addition to being fully enforceable,[98] mitigation should include performance standards and specific actions to implement these standards.

[94] CAPCOA, *supra* fn. 51, p. 32, 433, 435.
[95] While Project's purported mobile sources (3,560 $MTCO_2e$/yr) is 73.2 percent of total purported operational emissions (4,860 $MTCO_2e$/yr), Alternative 1's purported mobile sources (1,905 $MTCO_2e$/yr) is 72.1 percent of total purported operational emissions (2,640 $MTCO_2e$/yr). *See* DEIR, Appendix C, pp. 145, 374.
[96] *See* CEQA Guidelines § 15370.
[97] *See* CEQA Guidelines § 15126.4(a)(1)(B)
[98] *See* e.g., CEQA Guidelines §§ 15126.4(a)(2), 15097.

Here, the DEIR includes several MMs/PDFs without adequate monitoring and enforcement (DEIR, p. 3-20, 4.6-35 – 4.6-36; RTC, p. 3-38 – 3-39, 4-2 – 4-3, 4-10) (*see* table below).

MITIGATION MEASURE	INADEQUACY
MM GHG-1: The proposed hotel shall install solar photovoltaic panels on available roof space. It is anticipated that 50 percent of the roof space would be used for equipment, stairwells, elevator banks, skylights, etc. The remaining 50 percent of the roof space (approximately 30,000 square feet) would be used for the installation of solar photovoltaic panels.	Here, however, solar panels on the residential component is already required under Title 24 (RTC, p. 3-41) and, thus, part of the Project's and Alternative 1's baseline and not real mitigation (discussed *supra* section 3.1). Furthermore, no performance standards are provided, such as an explicit amount of energy to be generated, whether in total annual kW to be generated or as a percentage of the hotel's annual energy consumption. The RTC fails to provide an adequate response to this issue (RTC, p. 3-41).
MM GHG-2: The proposed Project shall use electric powered landscaping equipment (i.e., mowers, blowers, chainsaws in Planning Area 4 (Commercial Visitor or CV area) and common areas maintained by the Home Owners Association in Planning Area 3 (Residential or RM area). The proposed Project shall use electric or alternatively fueled sweepers with HEPA filters, if available.	Here, no explanation of what energy savings and GHG reductions can be expected from the measure. Nor is there any standard to determine the availability of electric/alternatively- fueled sweepers. Finally, the DEIR fails to indicate any monitoring or enforcement of this equipment.
MM GHG-3: Any future hotel in Planning Area 4 (Commercial Visitor or CV area) shall utilize a hotel energy management system to minimize unnecessary energy use.	Here, no explanation of what activities and areas will be covered by the system, what energy savings and GHG reductions can be expected from said system, or how the system will be monitored and enforced.
MM GHG-4: Swimming pools shall be heated with a solar swimming pool heater.	Here, no discussion is given to the expected energy savings and GHG reductions anticipated by this measure. In addition, the DEIR fails to indicate how this measure will be monitored and enforced.
MM GHG-5: Employers in Planning Area 4 (Commercial Visitor or CV area) shall establish a mechanism to encourage and coordinate ride sharing, vanpooling/carpooling or other transit opportunities and shall offer transit incentives to employees. This measure may be satisfied through the creation of a public message board or other reasonable alternative means of communication.	Here, this measure can be satisfied by the creation of a message board that is far less meaningful and tangible as compared to what SCAQMD recommended, which was "discounted transit passes or carpool rebates" (RTC, p. 3-42). The creation of a message board or other communication platform is akin to CAPCOA's mitigation strategy "Implement Commute Trip Reduction" (i.e., TRT-7), which is shown to have limited effectiveness (i.e., 0.8 – 4.0 % reduction in VMT), and applies only when marketing is a component of other programs offered concurrently in a Commuter Trip Reduction

	("CTR") Program (i.e., TRT-1 and TRT-2),[99] which can include: • Carpooling encouragement; • Ride-matching assistance; • Preferential carpool parking; • Flexible work schedules for carpools; • Half time transportation coordinator; • Vanpool assistance; • Bicycle end-trip facilities (parking, showers and lockers); • Transit subsidies; • Parking cash-out or priced parking; • Shuttles; • Emergency ride home; • Established performance standards (e.g. trip reduction requirements); • Required implementation; and • Regular monitoring and reporting.[100] Yet, none of this required under MM GHG-5. In addition, the DEIR fails to indicate how this measure will be monitored and enforced.
PDF HWQ-1: The overall ground elevation of the interior portion of the site shall be raised to an average of over 10.5 feet (NAVD88) and the ground elevations of the building pads shall be raised an additional one to two feet above the elevation of the roads within the interior of the site.	Here, this is an adaptation measure (i.e., action taken to account for the consequences of climate change) rather than mitigation (i.e., action taken to avoid further impacts on climate change). As such, this measure is irrelevant to the mitigation of the Project's and Alternative 1's cumulative impact on climate change.
PDF (unnumbered): Per the Specific Plan guidelines, the proposed Project would also reduce the heat absorption of onsite pavement, roofs and exterior walls through the application of heat reflecting surface color palette and selection of building/paving materials. Reduction in heat absorbent structures would reduce the amount of energy and GHG emissions required to reduce indoor temperatures. Additionally, the proposed Project would use minimal amounts of concrete and asphalt and install permeable pavement to allow for storm water infiltration,	Here, there is no performance measure (e.g., albedo rating) or explanation of what energy savings and GHG reductions can be expected from said measure. The RTC's reference to the Specific Plan Guidelines (RTC, p. 3-43) does not cure this defect given the Guidelines provide only vague aesthetic considerations absent any reference to a specific performance measure or albedo rating.[101] Nor does the DEIR or RTC explain whether this PDF/Guideline is merely replicating what is already required under Title 24[102] and, thus, should be considered part of the Project's and Alternative 1's baseline and not real

[99] CAPCOA, *supra* fn. 51, p. 66, 240-242.
[100] *Ibid*., p. 218-226.
[101] City of Huntington Beach (Dec. 2018) Draft Magnolia Tank Farm Design Guidelines, p. 25, https://www.huntingtonbeachca.gov/government/departments/planning/major/files/Dec.-2018-draft-MTF-Specific-Plan-Volume-II-.pdf.
[102] CAPCOA, *supra* fn. 51, p. 456-457.

which would further help reduce the GHG emissions (WHA 2018).	mitigation (discussed *supra* section 3.1). In addition, the DEIR fails to indicate how this measure will be monitored and enforced.

As the above table shows, the DEIR fails to demonstrate that the proposed MMs/PDFs are achievable and will actually be implemented, monitored, and enforced.

3.3 Failure to Implement Feasible Mitigation Measures

As mentioned above, under CEQA, an EIR is required to "describe ***feasible*** measures which could minimize significant adverse impacts … [w]here several measures are available to mitigate an impact, ***each should be discussed and the basis for selecting*** a particular measure should be identified." CEQA Guidelines § 15126.4 (emphasis added). So too, an EIR should discuss feasible alternatives and mitigation measures that "substantially lessen" the significant effects of a project.[103]

Here, as demonstrated above, the DEIR fails to implement all *feasible* mitigation measures. Specifically, the DEIR proposes only a single mitigation measures (i.e., MM GHG-5) to address mobile sources, despite the fact that mobile sources account for more than 70% of the mitigated operational emissions for both the Project and Alternative 1 (DEIR, Appendix C, pp. 145, 374).[104] The DEIR also lacks performance-based standards and the necesesary supplemental commponents of a CTR Program recommended by CAPCOA.[105]

Furthermore, the DEIR fails to include an adequate discussion of additional feasible mitigation measures that could ***substantially lessen*** the significant effects of the Project and Alternative 1. As discussed below (*see infra* section 3.4), numerous feasible mitigation measures are available to reduce the Project's significant GHG impacts beyond those included or addressed in the DEIR. Hence, the DEIR's assertion that the Project's GHG impact would be "significant and unavoidable" is incorrect (DEIR, p. 1-15 – 1-16, 4.16-34 – 4.6-36). Thus, based on updated modeling and analysis, we find the DEIR's less than significant conclusion regarding Alterative 1's GHG impact to be incorrect and unsubstantiated. Therefore, additional mitigation measures should be identified and incorporated in an updated EIR in order to reduce the Project and Alternative 1's GHG and air quality impacts to the maximum extent possible. Until all feasible mitigation is reviewed and incorporated into the Project and Alternative 1's design or proven to be infeasible (supported by substantial evidence), impacts from GHG and air emissions cannot be considered significant and unavoidable.

[103] *See e.g.,* CEQA Guidelines §§ 15021(a)(2), 15041(a), 15065(c)(2) & (3), 15091(a)(1), 15096(g)(2), 15126.6(a) & (f).

[104] While Project's purported mobile sources (3,560 $MTCO_2e$/yr) is 73.2 percent of total purported operational emissions (4,860 $MTCO_2e$/yr), Alternative 1's purported mobile sources (1,905 $MTCO_2e$/yr) is 72.1 percent of total purported operational emissions (2,640 $MTCO_2e$/yr).

[105] CAPCOA, *supra* fn. 51, p. 66, 218-226, 240-242.

3.4 Additional Feasible Mitigation Measures Available to Reduce Operational Emissions

Our analysis demonstrates that the Project and Alternative 1's GHG emissions may result in a potentially significant impact. As such, CEQA requires the City to consider all feasible mitigation measures, supported by substantial evidence, and subject to monitoring or reporting, such as those allowed under CEQA Guidelines § 15126.4(c).

In an effort to reduce the Project and Alternative 1's emissions, we identified several mitigation measures that are applicable, such as specific qualitative strategies identified in SCAG's RTP/SCS and the City's GGRP (*see supra* section 2.1), which collectively should be tied to specific quantitative performance-based standards identified by SCAQMD, SCAG, and CARB (*see supra* section 2.2). These measures should be considered in addition to substantiating those already proposed in the DEIR (*see supra* section 3.2).

Additional project-level mitigation measures can also be found in CARB's 2017 Scoping Plan Appendix B, which "CARB recommends that projects incorporate design features and GHG reduction measures, to the *degree feasible*, to minimize GHG emissions[,]" such as achieving "*no net additional GHG emissions*" and prioritizing "*on-site design features that reduce emissions, especially from VMT[s]*" (emphasis added).[106] Examples of potentially feasible mitigation to reduce project-level operational emissions recommended by CARB include:[107]

- Comply with lead agency's *standards for mitigating transportation impacts under SB 743*.
- Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals.
- Allow for new construction to *install fewer on-site parking spaces than required by local municipal building code*, if appropriate. This is not to be confused with the Americans with Disabilities Act ("ADA") requirements or other minimum parking requirements for dedicating space to clean air vehicles and/or EV charging infrastructure.
- Dedicate on-site parking for shared vehicles.
- Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential projects.
- Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan.
- Require on-site renewable energy generation.
- Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size development.
- Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.
- Require solar-ready roofs.

[106] CARB (Nov. 2017) 2017 Scoping Plan, p. 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.
[107] *Ibid*., Appendix B, p. 8-10, https://ww3.arb.ca.gov/cc/scopingplan/2030sp_appb_localaction_final.pdf.

- Require organic collection in new developments.
- Require low-water landscaping in new developments. Require water-efficient landscape maintenance to conserve water and reduce landscape waste.
- Achieve *Zero Net Energy performance targets prior to dates required by CALGreen*.
- Require new construction, including municipal building construction, to achieve *third-party green building certifications, such as the GreenPoint Rated program or the LEED rating system*.
- Require the design of bike lanes to connect to the regional bicycle network.
- Expand urban forestry and green infrastructure in new land development.
- Require *preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use*.
- Require a transportation management plan for specific plans which *establishes a numeric target for non-SOV travel and overall VMT*.
- *Develop a rideshare program targeting commuters to major employment centers*.
- Require the *design of bus stops/shelters/express lanes in new developments to promote the usage of mass transit.*
- Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available.
- Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment.
- Require the design of the electric boxes in new residential unit garages to promote electric vehicle usage.
- Require electric vehicle charging station (conductive/inductive) and signage for non-residential developments.
- Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands.
- Require each residential unit to be "solar ready," including installing the appropriate hardware and proper structural engineering.
- Require the installation of energy conserving appliances such as *on-demand tank-less water heaters and whole-house fans*.
- Require each residential and commercial building equip buildings with energy efficient AC units and heating systems with *programmable thermostats/timers*.
- Require large-scale residential developments and commercial buildings to *report energy use, and set specific targets for per-capita energy use*.
- Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets.
- Require the use of energy-efficient lighting for all street, parking, and area lighting.
- Require the landscaping design for parking lots to utilize tree cover.
- Incorporate water retention in the design of parking lots and landscaping.
- Require the development project to propose an *off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions*. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association

("CAPCOA"), the California Air Resources Board, or other similar entities determined acceptable by the local air district.

- Require the *project to purchase carbon credits* from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry ("ACR"), Climate Action Reserve ("CAR") or other similar carbon credit registry determined to be acceptable by the local air district.
- Encourage the applicant to consider generating or purchasing local and California-only carbon credits as the preferred mechanism to implement its offsite mitigation measure for GHG emissions and that will facilitate the State's efforts in achieving the GHG emission reduction goal.

Additional feasible mitigation measures can also be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures,* which attempt to reduce GHG levels, as well as reduce criteria air pollutants.[108] Therefore, to reduce the Project and Alternative 1's primary GHG source, mobile emissions and VMT, the City should consider the following CAPCOA-recommended traffic-related measures (*see* excerpt below).[109]

Transportation						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Land Use / Location	LUT-1	Increase Density			1.5-30.0%	VMT
	LUT-2	Increase Location Efficiency			10-65%	VMT
	LUT-3	Increase Diversity of Urban and Suburban Developments (Mixed Use)			9-30%	VMT
	LUT-4	Incr. Destination Accessibility			6.7-20%	VMT
	LUT-5	Increase Transit Accessibility			0.5-24.6%	VMT
	LUT-6	Integrate Affordable and Below Market Rate Housing			0.04-1.20%	VMT
	LUT-7	Orient Project Toward Non-Auto Corridor			NA	
	LUT-8	Locate Project near Bike Path/Bike Lane			NA	
	LUT-9	Improve Design of Development			3.0-21.3%	VMT
Neighborhood / Site Design	SDT-1	Provide Pedestrian Network Improvements			0-2%	VMT
	SDT-2	Traffic Calming Measures			0.25-1.00%	VMT
	SDT-3	Implement a Neighborhood Electric Vehicle (NEV) Network			0.5-12.7%	VMT
	SDT-4	Urban Non-Motorized Zones		SDT-1	NA	
	SDT-5	Incorporate Bike Lane Street Design (on-site)		LUT-9	NA	
	SDT-6	Provide Bike Parking in Non-Residential Projects		LUT-9	NA	
	SDT-7	Provide Bike Parking in Multi-Unit Residential Projects		LUT-9	NA	
	SDT-8	Provide EV Parking		SDT-3	NA	
	SDT-9	Dedicate Land for Bike Trails		LUT-9	NA	
Parking Policy / Pricing	PDT-1	Limit Parking Supply			5-12.5%	
	PDT-2	Unbundle Parking Costs from Property Cost			2.6-13%	
	PDT-3	Implement Market Price Public Parking (On-Street)			2.8-5.5%	
	PDT-4	Require Residential Area Parking Permits		PDT-1, 2 & 3	NA	

[108] CAPCOA, *supra* fn. 51.
[109] CAPCOA, *supra* fn. 51, Tbl. 6-2.

Transportation - continued						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Trip Reduction Programs	TRT-1	Implement Voluntary CTR Programs			1.0-6.2%	Commute VMT
	TRT-2	Implement Mandatory CTR Programs – Required Implementation/Monitoring			4.2-21.0%	Commute VMT
	TRT-3	Provide Ride-Sharing Programs			1-15%	Commute VMT
	TRT-4	Implement Subsidized or Discounted Transit Prog.			0.3-20.0%	Commute VMT
	TRT-5	Provide End of Trip Facilities		TRT-1, 2 & 3	NA	
	TRT-6	Telecommuting and Alternative Work Schedules			0.07-5.50%	Commute VMT
	TRT-7	Implement Commute Trip Reduction Marketing			0.8-4.0%	Commute VMT
	TRT-8	Implement Preferential Parking Permit Program		TRT-1, 2 & 3	NA	
	TRT-9	Implement Car-Sharing Program			0.4-0.7%	VMT
	TRT-10	Implement School Pool Program			7.2-15.8%	School VMT
	TRT-11	Provide Employer-Sponsored Vanpool/Shuttle			0.3-13.4%	Commute VMT
	TRT-12	Implement Bike-Sharing Program		SDT-5, LUT-9	NA	
	TRT-13	Implement School Bus Program			38-63%	School VMT
	TRT-14	Price Workplace Parking			0.1-19.7%	Commute VMT
	TRT-15	Implement Employee Parking "Cash-Out"			0.6-7.7%	Commute VMT

Transportation - continued						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Transit System Improvements	TST-1	Provide a Bus Rapid Transit System			0.02-3.2%	VMT
	TST-2	Implement Transit Access Improvements		TST-3, TST-4	NA	
	TST-3	Expand Transit Network			0.1-8.2%	VMT
	TST-4	Increase Transit Service Frequency/Speed			0.02-2.5%	VMT
	TST-5	Provide Bike Parking Near Transit		TST-3, TST-4	NA	
	TST-6	Provide Local Shuttles		TST-3, TST-4	NA	
Road Pricing / Management	RPT-1	Implement Area or Cordon Pricing			7.9-22.0%	VMT
	RPT-2	Improve Traffic Flow			0-45%	VMT
	RPT-3	Require Project Contributions to Transportation Infrastructure Improvement Projects		RPT-2, TST-1 to 6	NA	
	RPT-4	Install Park-and-Ride Lots		RPT-1, TRT-11, TRT-3, TST-1 to 6	NA	
Vehicles	VT-1	Electrify Loading Docks and/or Require Idling-Reduction Systems			26-71%	Truck Idling Time
	VT-2	Utilize Alternative Fueled Vehicles			Varies	
	VT-3	Utilize Electric or Hybrid Vehicles			0.4-20.3%	Fuel Use

Other CAPCOA-recommended measures to reduce GHG emissions from non-mobile sources include:

- Energy-related mitigation:
  - Install programmable thermostat timers
  - Establish onsite renewable energy systems, including wind power
  - Limit outdoor lighting requirements
  - Reduce unnecessary outdoor lighting by utilizing design features such as limiting the hours of operation of outdoor lighting.
  - Provide education on energy efficiency to residents, customers, and/or tenants. Provide information on energy management services for large energy users.
  - Meet “reach” goals for building energy efficiency and renewable energy use.
  - Limit the use of outdoor lighting to only that needed for safety and security purposes.
  - Require use of electric or alternatively fueled sweepers with HEPA filters.
  - Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.
  - Prohibit gas powered landscape equipment and implement electric yard equipment compatibility

- Water-related mitigation:
    - Install an infiltration basin to provide an opportunity for 100% of the storm water to infiltrate on-site.
    - Install a system to reutilize gray water
    - Use locally-sourced water supply
    - Plant native and drought-resistant trees and vegetation
- Develop and follow a "green streets guide" that requires:
    - Use of minimal amounts of concrete and asphalt;
    - Use of groundcovers rather than pavement to reduce heat reflection.[110]
- Implement Project design features such as:
    - Shade HVAC equipment from direct sunlight;
    - Install high-albedo white thermoplastic polyolefin roof membrane;
    - Install formaldehyde-free insulation; and
    - Use recycled-content gypsum board.
    - Require all buildings to become "LEED" and "WELL" certified.
- Plant low-VOC emitting shade trees, e.g., in parking lots to reduce evaporative emissions from parked vehicles.

When combined, these measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project and Alternative 1, which subsequently, reduces emissions released during operation. An updated EIR should be prepared to include additional mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR also should demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project and Alternative 1's emissions are reduced to the maximum extent possible.

3.5 Failure to Incorporate All Feasible Mitigation Measures

According to the DEIR, the proposed Project will result in "significant and unavoidable" GHG impacts (p. 1-15). As previously mentioned, under CEQA, the City may not approve the Project if there are feasible mitigation measures or alternatives available that would ***substantially lessen*** the Project's significant GHG effects absent specific economic, legal, social, technological, or other considerations that make such mitigation or alternatives infeasible.[111]

However, the Project does not include mitigation that substantially lessens the Project's GHG emissions. Based on the DEIR's CalEEMod modeling, the Project unmitigated would produce 5,342 $MTCO_2e$/yr in operational emissions, including 3,560 $MTCO_2e$/yr from mobile sources (Appendix C, pp. 144). With mitigation, the Project would produce 4,860 $MTCO_2e$/yr operational emissions, including 3,560 $MTCO_2e$/yr from mobile sources (*id.* at pp. 145). As indicated below, all mitigation measures included in

[110] HARC (July 2004) Cool Houston Plan, http://www.harcresearch.org/sites/default/files/documents/projects/CoolHoustonPlan_0.pdf.
[111] *See* Pub. Res. Code §§ 21002, 21081(a)(3); *see also* CEQA Guidelines § 15091(a)(3).

the model amount to a nine percent reduction in total operational GHG emissions—*with zero reductions from mobile sources* (see table below and Exhibit K attached hereto).

Project Purported Mitigated Emissions, Unmitigated v. Mitigated			
Operational Sources	**Emissions ($MTCO_2e$/yr)**		**Percent Reduction**
	Unmitigated	**Mitigated**	
Mobile	3,560	3,560	0.00%
Total	5,342	4,860	9.01%

In contrast, Alternative 1 with mitigation would produce 2,640 $MTCO_2e$/yr in operational emissions according to the DEIR, including 1,905 $MTCO_2e$/yr from mobile sources (Appendix C, pp. 374). When compared to the Project's mitigated operational emissions in total and from mobile sources (i.e., 4,860 and 3,560 $MTCO_2e$/yr, respectively), *Alternative 1 would reduce total emissions and mobile source emission by more than 45 percent* (*see* table below and Exhibit K attached hereto).

Purported Mitigated Emissions, Project v. Alternative 1			
Operational Sources	**Mitigated Emissions ($MTCO_2e$/yr)**		**Percent Reduction**
	Project	**Alternative 1**	
Mobile	3,560	1,905	46.49%
Total	4,860	2,640	45.67%

As demonstrated, the Project fails to reduce mobile-source emissions and includes only a nine percent reduction of total operational emissions. Contrastingly, CARB has called for urgent local action regarding mobile-source emissions in its 2017 Scoping Plan, which states:

> "While the State can do more to accelerate and incentivize these local decisions, *local actions that reduce VMT are also necessary* to meet transportation sector-specific goals and achieve the 2030 target under SB 32. Through developing the Scoping Plan, *CARB staff is more convinced than ever that*, in addition to achieving GHG reductions from cleaner fuels and vehicles, *California must also reduce VMT* … It is *recommended that local governments consider policies to reduce VMT to help achieve these reductions*, including: land use and community design that reduces VMT; transit oriented development; street design policies that prioritize transit, biking, and walking; and increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities. *It is important that VMT reducing strategies are implemented early because more time is necessary to achieve the full climate, health, social, equity, and economic benefits from these strategies*." (Emphasis added). [112]

In sum, the DEIR fails to consider numerous feasible mitigation measures that may *substantially lessen* the Project's significant GHG impacts. The DEIR also fails to evaluate the feasibility of additional mitigation measures. The DEIR should be recirculated to evaluate feasible mitigation measures and

[112] CARB (Nov. 2017) 2017 Scoping Plan, p. 101, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

alternative uses that substantially lessen the Project's mobile-related GHG emissions, such as uses that have less traffic generation and, thus, less mobile-related GHG emissions.

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachments:

Exhibit A: SWAPE Project AERSCREEN Modeling
Exhibit B: SWAPE Project CalEEMod Modeling
Exhibit C: SWAPE Alternative 1 AERSCREEN Modeling
Exhibit D: SWAPE Alternative 1 CalEEMod Modeling
Exhibit E: SWAPE CO2e Per Capita Emission Calculations
Exhibit F: SWAPE Daily VMT Per Capita Calculations
Exhibit G: 2017 Scoping Plan Daily VMT Per Capita Benchmarks
Exhibit H: SWAPE Daily VMT Per Capita Calculations under 2017 Scoping Plan Benchmarks
Exhibit I: 2017 Scoping Plan SB 743 Total Daily VMT Per Capita Thresholds
Exhibit J: SWAPE Daily Residential VMT Per Capita Calculations under 2017 Scoping Plan Thresholds
Exhibit K: Project Purported Mitigated Emission Comparisons

EXHIBIT A

Start date and time 12/03/19 13:16:15

AERSCREEN 16216

MagnoliaTankFarm_Construction

MagnoliaTankFarm_Construction

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.165E-02 g/s	0.131E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	351.50 meters	1153.22 feet
Area Source Width:	333.00 meters	1092.52 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	201874	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

MagnoliaTankFarm_Construction.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 12/03/19 13:17:52

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector  10
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  45


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********
```

```
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  45

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 ****************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   8


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  35


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   9


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  40


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector  10


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  45
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  45

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

FLOWSECTOR   ended 12/03/19 13:18:25

REFINE       started 12/03/19 13:18:25

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

REFINE       ended 12/03/19 13:18:28
```

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 12/03/19 13:18:30

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.49960E+00         1.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52193E+00        25.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54380E+00        50.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56441E+00        75.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58391E+00       100.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60239E+00       125.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61996E+00       150.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63668E+00       175.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65224E+00       200.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66668E+00       225.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.66791E+00       227.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56572E+00       250.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46952E+00       275.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41505E+00       300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36730E+00       325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33059E+00       350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.30139E+00       375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27750E+00       400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25750E+00       425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24045E+00       450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22572E+00       475.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21282E+00       500.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20137E+00       525.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19107E+00       549.99      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18179E+00       575.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17339E+00       600.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16566E+00       625.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15856E+00       650.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15205E+00       675.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14596E+00       700.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14035E+00       725.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13510E+00       750.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13021E+00       775.00      0.00  40.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12565E+00   800.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12132E+00   825.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11726E+00   850.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11346E+00   875.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10985E+00   900.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10645E+00   925.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10323E+00   950.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10016E+00   975.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.97267E-01   1000.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.94532E-01   1025.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.91904E-01   1050.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.89388E-01   1075.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.86996E-01   1100.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.84719E-01   1125.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.82546E-01   1149.99   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.80469E-01   1175.00   0.00 30.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

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   0.78470E-01      1200.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76555E-01      1225.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74726E-01      1250.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72977E-01      1275.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71295E-01      1300.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69684E-01      1325.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68118E-01      1350.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66607E-01      1375.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65150E-01      1400.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63765E-01      1425.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62436E-01      1450.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61150E-01      1475.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59907E-01      1500.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58703E-01      1525.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57529E-01      1550.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56396E-01      1574.99      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55305E-01      1600.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.54261E-01      1625.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53243E-01      1650.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52258E-01      1675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51306E-01      1700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50382E-01      1725.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49482E-01      1750.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48610E-01      1775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47764E-01      1800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46948E-01      1825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46149E-01      1850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45373E-01      1875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44622E-01      1900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43894E-01      1924.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43187E-01      1950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42497E-01      1975.01      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41825E-01      2000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41171E-01      2025.00      0.00  15.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.40530E-01   2050.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.39910E-01   2075.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.39309E-01   2100.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.38725E-01   2125.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.38147E-01   2150.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.37588E-01   2175.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.37045E-01   2200.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.36516E-01   2225.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.35996E-01   2250.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.35488E-01   2275.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.34992E-01   2300.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.34509E-01   2325.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.34038E-01   2350.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.33580E-01   2375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.33134E-01   2400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.32697E-01   2425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

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   0.32266E-01      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31846E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31435E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31033E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30641E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30258E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29883E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29516E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29152E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28796E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28447E-01      2700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28109E-01      2725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27778E-01      2750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27455E-01      2775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27138E-01      2800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26826E-01      2825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26520E-01      2850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.26219E-01      2875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25923E-01      2900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25634E-01      2925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25348E-01      2950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25068E-01      2975.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24796E-01      3000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24530E-01      3025.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24267E-01      3050.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24008E-01      3074.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23754E-01      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23507E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23265E-01      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23026E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22790E-01      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22558E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22331E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22107E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21887E-01   3300.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21672E-01   3325.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21459E-01   3350.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21251E-01   3375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21044E-01   3400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20840E-01   3425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20640E-01   3450.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20443E-01   3475.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20250E-01   3500.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20060E-01   3525.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19876E-01   3550.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19694E-01   3575.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19515E-01   3600.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19338E-01   3625.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19164E-01   3650.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18992E-01   3675.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

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   0.18822E-01      3700.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18655E-01      3725.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18491E-01      3750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18330E-01      3775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18169E-01      3800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18012E-01      3825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17857E-01      3850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17703E-01      3875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17552E-01      3900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17403E-01      3925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17256E-01      3950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17112E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16970E-01      4000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16831E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16693E-01      4050.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16557E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16423E-01      4100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.16291E-01      4125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16161E-01      4150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16033E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15907E-01      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15783E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15660E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15540E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15421E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15303E-01      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15187E-01      4350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15073E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14960E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14847E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14736E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14627E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14519E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14412E-01      4525.00      0.00   0.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.14306E-01   4550.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.14202E-01   4575.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.14100E-01   4600.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13997E-01   4625.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13896E-01   4650.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13796E-01   4675.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13698E-01   4700.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13600E-01   4725.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13504E-01   4750.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13409E-01   4775.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13315E-01   4800.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13222E-01   4825.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13131E-01   4850.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13041E-01   4875.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12952E-01   4900.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12864E-01   4925.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.12777E-01      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12691E-01      4975.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12607E-01      5000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

Start date and time 12/03/19 13:18:32

AERSCREEN 16216

MagnoliaTankFarm_Operation

MagnoliaTankFarm_Operation

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	----------	----------
Emission Rate:	0.328E-02 g/s	0.261E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	351.50 meters	1153.22 feet
Area Source Width:	333.00 meters	1092.52 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	201874	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

MagnoliaTankFarm_Operation.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 12/03/19 13:19:24

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector  10
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  45


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********
```

```
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  45

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 ****************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   8


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  35


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   9


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  40


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector  10


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  45
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  45

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

FLOWSECTOR   ended 12/03/19 13:19:56

REFINE       started 12/03/19 13:19:56

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

REFINE       ended 12/03/19 13:19:59
```

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 12/03/19 13:20:02

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.99213E+00         1.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10365E+01        25.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10799E+01        50.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11208E+01        75.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11595E+01       100.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11962E+01       125.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12311E+01       150.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12644E+01       175.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12952E+01       200.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13239E+01       225.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.13264E+01       227.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11234E+01       250.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93239E+00       275.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82423E+00       300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72939E+00       325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65650E+00       350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.59851E+00       375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55107E+00       400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51135E+00       425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47750E+00       450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44824E+00       475.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42262E+00       500.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39990E+00       525.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37944E+00       549.99      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36101E+00       575.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34432E+00       600.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32897E+00       625.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31488E+00       650.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30194E+00       675.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28986E+00       700.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27871E+00       725.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26830E+00       750.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25857E+00       775.00      0.00  40.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.24952E+00   800.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.24092E+00   825.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.23285E+00   850.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.22531E+00   875.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21814E+00   900.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21139E+00   925.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20500E+00   950.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19890E+00   975.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19316E+00   1000.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18772E+00   1025.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18251E+00   1050.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17751E+00   1075.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17276E+00   1100.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16824E+00   1125.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16392E+00   1149.99   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.15980E+00   1175.00   0.00 30.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.15583E+00      1200.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15203E+00      1225.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14839E+00      1250.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14492E+00      1275.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14158E+00      1300.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13838E+00      1325.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13527E+00      1350.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13227E+00      1375.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12938E+00      1400.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12663E+00      1425.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12399E+00      1450.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12143E+00      1475.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11896E+00      1500.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11658E+00      1525.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11424E+00      1550.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11199E+00      1574.99      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10983E+00      1600.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.10775E+00      1625.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10573E+00      1650.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10378E+00      1675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10188E+00      1700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10005E+00      1725.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98263E-01      1750.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96531E-01      1775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94851E-01      1800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93231E-01      1825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91643E-01      1850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90104E-01      1875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.88613E-01      1900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87166E-01      1924.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85762E-01      1950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.84391E-01      1975.01      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83058E-01      2000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.81759E-01      2025.00      0.00  15.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.80487E-01   2050.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.79256E-01   2075.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.78061E-01   2100.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.76901E-01   2125.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.75754E-01   2150.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.74644E-01   2175.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.73566E-01   2200.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.72515E-01   2225.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.71483E-01   2250.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.70473E-01   2275.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.69488E-01   2300.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.68530E-01   2325.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.67595E-01   2350.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.66684E-01   2375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.65799E-01   2400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.64931E-01   2425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.64076E-01      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63240E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62424E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61627E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60848E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60087E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59343E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58614E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57891E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57183E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56492E-01      2700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55820E-01      2725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55163E-01      2750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54522E-01      2775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53891E-01      2800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53271E-01      2825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52664E-01      2850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.52066E-01      2875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51480E-01      2900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50905E-01      2925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50338E-01      2950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49782E-01      2975.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49241E-01      3000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48713E-01      3025.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48190E-01      3050.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47676E-01      3074.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47172E-01      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46681E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46200E-01      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45726E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45257E-01      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44797E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44345E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43901E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.43465E-01   3300.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.43036E-01   3325.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.42615E-01   3350.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.42201E-01   3375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.41789E-01   3400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.41384E-01   3425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.40987E-01   3450.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.40596E-01   3475.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.40212E-01   3500.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.39836E-01   3525.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.39469E-01   3550.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.39108E-01   3575.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.38753E-01   3600.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.38403E-01   3625.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.38056E-01   3650.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.37714E-01   3675.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.37378E-01      3700.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37047E-01      3725.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36721E-01      3750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36400E-01      3775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36082E-01      3800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35769E-01      3825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35460E-01      3850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35156E-01      3875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34856E-01      3900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34560E-01      3925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34268E-01      3950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33981E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33700E-01      4000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33424E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33150E-01      4050.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32880E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32614E-01      4100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.32352E-01      4125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32093E-01      4150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31839E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31588E-01      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31342E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31099E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30859E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30623E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30389E-01      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30159E-01      4350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29932E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29708E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29484E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29264E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29046E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28832E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28619E-01      4525.00      0.00   0.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.28410E-01   4550.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.28204E-01   4575.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.28000E-01   4600.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27796E-01   4625.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27595E-01   4650.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27397E-01   4675.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27201E-01   4700.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27008E-01   4725.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26817E-01   4750.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26628E-01   4775.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26441E-01   4800.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26257E-01   4825.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26076E-01   4850.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25897E-01   4875.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25721E-01   4900.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25546E-01   4925.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

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   0.25372E-01      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25202E-01      4975.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25035E-01      5000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

EXHIBIT B

Magnolia Tank Farm EIR- Full Buildout, Project

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	500.00	Space	4.50	200,000.00	0
Parking Lot	832.00	Space	7.49	332,800.00	0
City Park	3.00	Acre	2.90	130,680.00	0
Hotel	215.00	Room	3.90	211,000.00	0
Single Family Housing	250.00	Dwelling Unit	18.90	450,000.00	715
Regional Shopping Center	19.00	1000sqft	0.40	19,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	529	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Winter

Project Characteristics - Matches DEIR's model.

Land Use - Matches DEIR's model, except see SWAPE comments regarding parking.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Matches DEIR's model.

Grading -

Vehicle Trips - See SWAPE comments regarding Weekday and Sunday trip rates.

Woodstoves - Matches DEIR's model.

Energy Use -

Water And Wastewater - Matches DEIR's model.

Construction Off-road Equipment Mitigation - Matches DEIR's model.

Area Mitigation -

Energy Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	30.00	54.00
tblConstructionPhase	NumDays	75.00	121.00
tblConstructionPhase	NumDays	740.00	1,195.00
tblConstructionPhase	NumDays	55.00	236.00

tblConstructionPhase	NumDays	55.00	97.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberNoFireplace	25.00	0.00
tblFireplaces	NumberWood	12.50	0.00
tblGrading	MaterialImported	0.00	120,000.00
tblLandUse	LandUseSquareFeet	312,180.00	211,000.00
tblLandUse	LotAcreage	3.00	2.90
tblLandUse	LotAcreage	7.17	3.90
tblLandUse	LotAcreage	81.17	18.90
tblLandUse	LotAcreage	0.44	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	529
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	903.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,143.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	54.00	65.00
tblVehicleTrips	ST_TR	8.19	8.06
tblVehicleTrips	ST_TR	49.97	96.15
tblVehicleTrips	ST_TR	9.91	8.95

tblVehicleTrips	SU_TR	16.74	29.00
tblVehicleTrips	SU_TR	5.95	8.04
tblVehicleTrips	SU_TR	25.24	82.16
tblVehicleTrips	SU_TR	8.62	8.60
tblVehicleTrips	WD_TR	1.89	29.00
tblVehicleTrips	WD_TR	8.17	8.04
tblVehicleTrips	WD_TR	42.70	82.16
tblVehicleTrips	WD_TR	9.52	8.60
tblWater	IndoorWaterUseRate	5,453,855.55	8,870,117.00
tblWater	IndoorWaterUseRate	1,407,377.91	2,288,951.00
tblWater	IndoorWaterUseRate	16,288,506.41	26,491,526.00
tblWater	OutdoorWaterUseRate	3,574,444.05	5,813,454.00
tblWater	OutdoorWaterUseRate	605,983.95	985,569.00
tblWater	OutdoorWaterUseRate	862,586.46	1,402,905.00
tblWater	OutdoorWaterUseRate	10,268,840.99	16,701,179.00
tblWoodstoves	NumberCatalytic	12.50	0.00
tblWoodstoves	NumberNoncatalytic	12.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.1977	104.3072	55.9755	0.2001	18.2675	2.9351	20.3132	9.9840	2.7045	11.8661	0.0000	20,948.9520	20,948.9520	4.1630	0.0000	21,053.0281
2022	4.6269	38.7293	39.2354	0.1409	6.2805	1.0906	7.3711	1.6906	1.0213	2.7119	0.0000	14,225.9825	14,225.9825	1.9577	0.0000	14,274.9252
2023	4.2680	32.9398	37.8808	0.1380	6.2805	0.9449	7.2254	1.6906	0.8846	2.5751	0.0000	13,927.3130	13,927.3130	1.9191	0.0000	13,975.2910
2024	4.0620	31.3583	36.9392	0.1360	6.2805	0.8474	7.1279	1.6906	0.7928	2.4833	0.0000	13,730.4687	13,730.4687	1.9043	0.0000	13,778.0754
2025	25.9544	31.3605	39.8662	0.1449	7.3200	0.8145	8.1345	1.9662	0.7649	2.7311	0.0000	14,611.0687	14,611.0687	1.9184	0.0000	14,659.0276
Maximum	**25.9544**	**104.3072**	**55.9755**	**0.2001**	**18.2675**	**2.9351**	**20.3132**	**9.9840**	**2.7045**	**11.8661**	**0.0000**	**20,948.9520**	**20,948.9520**	**4.1630**	**0.0000**	**21,053.0281**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.0520	90.3284	60.2688	0.2001	18.2675	2.3632	20.3132	9.9840	2.2659	11.8661	0.0000	20,948.9520	20,948.9520	4.1630	0.0000	21,053.0281
2022	4.6269	38.7293	39.2354	0.1409	6.2805	1.0906	7.3711	1.6906	1.0213	2.7119	0.0000	14,225.9825	14,225.9825	1.9577	0.0000	14,274.9252
2023	4.2680	32.9398	37.8808	0.1380	6.2805	0.9449	7.2254	1.6906	0.8846	2.5751	0.0000	13,927.3130	13,927.3130	1.9191	0.0000	13,975.2910
2024	4.0620	31.3583	36.9392	0.1360	6.2805	0.8474	7.1279	1.6906	0.7928	2.4833	0.0000	13,730.4687	13,730.4687	1.9043	0.0000	13,778.0753
2025	25.9544	31.3605	39.8662	0.1449	7.3200	0.8145	8.1345	1.9662	0.7649	2.7311	0.0000	14,611.0687	14,611.0687	1.9184	0.0000	14,659.0275
Maximum	**25.9544**	**90.3284**	**60.2688**	**0.2001**	**18.2675**	**2.3632**	**20.3132**	**9.9840**	**2.2659**	**11.8661**	**0.0000**	**20,948.9520**	**20,948.9520**	**4.1630**	**0.0000**	**21,053.0281**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.65**	**5.86**	**-2.05**	**0.00**	**0.00**	**8.62**	**0.00**	**0.00**	**7.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341
Energy	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151
Mobile	6.3536	23.8266	77.2440	0.3266	35.3551	0.2390	35.5941	9.4538	0.2215	9.6754		33,324.3364	33,324.3364	1.3242		33,357.4418
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**22.8751**	**31.2369**	**101.8796**	**0.3723**	**35.3551**	**0.9211**	**36.2762**	**9.4538**	**0.9036**	**10.3574**	**0.0000**	**42,290.3423**	**42,290.3423**	**1.5327**	**0.1636**	**42,377.3984**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341
Energy	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151
Mobile	6.3536	23.8266	77.2440	0.3266	35.3551	0.2390	35.5941	9.4538	0.2215	9.6754		33,324.3364	33,324.3364	1.3242		33,357.4418
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**22.8751**	**31.2369**	**101.8796**	**0.3723**	**35.3551**	**0.9211**	**36.2762**	**9.4538**	**0.9036**	**10.3574**	**0.0000**	**42,290.3423**	**42,290.3423**	**1.5327**	**0.1636**	**42,377.3984**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/4/2021	6	54	
2	Grading	Grading	3/5/2021	7/23/2021	6	121	
3	Building Construction	Building Construction	7/26/2021	5/19/2025	6	1195	
4	Architectural Coating	Architectural Coating	4/1/2025	12/31/2025	6	236	
5	Paving	Paving	5/20/2025	9/9/2025	6	97	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 544.5

Acres of Paving: 11.99

Residential Indoor: 911,250; Residential Outdoor: 303,750; Non-Residential Indoor: 345,000; Non-Residential Outdoor: 115,000; Striped Parking Area: 31,968 (Architectural Coating – sqft)

OffRoad Equipment

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Bore/Drill Rigs	3	8.00	221	0.50
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	17,143.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	463.00	173.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	93.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458
Total	**0.0736**	**0.0432**	**0.5045**	**1.8000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**179.2498**	**179.2498**	**3.8400e-003**		**179.3458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458
Total	**0.0736**	**0.0432**	**0.5045**	**1.8000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**179.2498**	**179.2498**	**3.8400e-003**		**179.3458**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	6.0501	67.8054	44.8878	0.0923		2.8181	2.8181		2.5927	2.5927		8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**6.0501**	**67.8054**	**44.8878**	**0.0923**	**10.7943**	**2.8181**	**13.6124**	**3.8255**	**2.5927**	**6.4182**		**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0455	36.4419	10.3870	0.1053	2.4667	0.1152	2.5819	0.6752	0.1102	0.7855		11,757.1275	11,757.1275	1.2654		11,788.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1022	0.0600	0.7007	2.5000e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		248.9581	248.9581	5.3300e-003		249.0913
Total	**1.1476**	**36.5019**	**11.0876**	**0.1078**	**2.7461**	**0.1170**	**2.8631**	**0.7494**	**0.1119**	**0.8612**		**12,006.0855**	**12,006.0855**	**1.2707**		**12,037.8540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	3.8236	53.8266	49.1811	0.0923		2.2462	2.2462		2.1540	2.1540	0.0000	8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**3.8236**	**53.8266**	**49.1811**	**0.0923**	**10.7943**	**2.2462**	**13.0406**	**3.8255**	**2.1540**	**5.9795**	**0.0000**	**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0455	36.4419	10.3870	0.1053	2.4667	0.1152	2.5819	0.6752	0.1102	0.7855		11,757.1275	11,757.1275	1.2654		11,788.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1022	0.0600	0.7007	2.5000e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		248.9581	248.9581	5.3300e-003		249.0913
Total	**1.1476**	**36.5019**	**11.0876**	**0.1078**	**2.7461**	**0.1170**	**2.8631**	**0.7494**	**0.1119**	**0.8612**		**12,006.0855**	**12,006.0855**	**1.2707**		**12,037.8540**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542		5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**		**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4846	16.1916	4.8289	0.0416	1.1053	0.0350	1.1403	0.3181	0.0335	0.3515		4,535.8696	4,535.8696	0.3825		4,545.4312
Worker	1.8920	1.1111	12.9764	0.0462	5.1753	0.0335	5.2088	1.3725	0.0308	1.4033		4,610.7031	4,610.7031	0.0987		4,613.1713
Total	**2.3766**	**17.3027**	**17.8053**	**0.0879**	**6.2806**	**0.0685**	**6.3490**	**1.6906**	**0.0643**	**1.7549**		**9,146.5727**	**9,146.5727**	**0.4812**		**9,158.6025**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542	0.0000	5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**	**0.0000**	**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4846	16.1916	4.8289	0.0416	1.1053	0.0350	1.1403	0.3181	0.0335	0.3515		4,535.8696	4,535.8696	0.3825		4,545.4312
Worker	1.8920	1.1111	12.9764	0.0462	5.1753	0.0335	5.2088	1.3725	0.0308	1.4033		4,610.7031	4,610.7031	0.0987		4,613.1713
Total	**2.3766**	**17.3027**	**17.8053**	**0.0879**	**6.2806**	**0.0685**	**6.3490**	**1.6906**	**0.0643**	**1.7549**		**9,146.5727**	**9,146.5727**	**0.4812**		**9,158.6025**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620		5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**		**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4556	15.3079	4.6560	0.0412	1.1053	0.0305	1.1357	0.3181	0.0291	0.3472		4,490.8947	4,490.8947	0.3698		4,500.1391
Worker	1.7928	1.0065	12.0926	0.0445	5.1753	0.0329	5.2081	1.3725	0.0302	1.4027		4,440.0717	4,440.0717	0.0896		4,442.3117
Total	**2.2484**	**16.3144**	**16.7486**	**0.0857**	**6.2805**	**0.0633**	**6.3438**	**1.6906**	**0.0594**	**1.7499**		**8,930.9664**	**8,930.9664**	**0.4594**		**8,942.4507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620	0.0000	5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**	**0.0000**	**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4556	15.3079	4.6560	0.0412	1.1053	0.0305	1.1357	0.3181	0.0291	0.3472		4,490.8947	4,490.8947	0.3698		4,500.1391
Worker	1.7928	1.0065	12.0926	0.0445	5.1753	0.0329	5.2081	1.3725	0.0302	1.4027		4,440.0717	4,440.0717	0.0896		4,442.3117
Total	**2.2484**	**16.3144**	**16.7486**	**0.0857**	**6.2805**	**0.0633**	**6.3438**	**1.6906**	**0.0594**	**1.7499**		**8,930.9664**	**8,930.9664**	**0.4594**		**8,942.4507**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407		5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**		**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3470	11.5226	4.2785	0.0398	1.1053	0.0148	1.1201	0.3181	0.0142	0.3322		4,356.3001	4,356.3001	0.3419		4,364.8476
Worker	1.7029	0.9136	11.2598	0.0428	5.1753	0.0323	5.2075	1.3725	0.0297	1.4022		4,269.5933	4,269.5933	0.0812		4,271.6231
Total	**2.0498**	**12.4362**	**15.5382**	**0.0826**	**6.2805**	**0.0471**	**6.3276**	**1.6906**	**0.0439**	**1.7344**		**8,625.8933**	**8,625.8933**	**0.4231**		**8,636.4707**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407	0.0000	5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**	**0.0000**	**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3470	11.5226	4.2785	0.0398	1.1053	0.0148	1.1201	0.3181	0.0142	0.3322		4,356.3001	4,356.3001	0.3419		4,364.8476
Worker	1.7029	0.9136	11.2598	0.0428	5.1753	0.0323	5.2075	1.3725	0.0297	1.4022		4,269.5933	4,269.5933	0.0812		4,271.6231
Total	**2.0498**	**12.4362**	**15.5382**	**0.0826**	**6.2805**	**0.0471**	**6.3276**	**1.6906**	**0.0439**	**1.7344**		**8,625.8933**	**8,625.8933**	**0.4231**		**8,636.4707**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498		5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**		**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3352	11.3797	4.1867	0.0395	1.1053	0.0144	1.1197	0.3181	0.0138	0.3318		4,322.2310	4,322.2310	0.3362		4,330.6355
Worker	1.6237	0.8318	10.4706	0.0411	5.1753	0.0317	5.2070	1.3725	0.0292	1.4017		4,100.4487	4,100.4487	0.0737		4,102.2902
Total	**1.9589**	**12.2116**	**14.6573**	**0.0806**	**6.2805**	**0.0462**	**6.3267**	**1.6906**	**0.0430**	**1.7335**		**8,422.6798**	**8,422.6798**	**0.4098**		**8,432.9256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498	0.0000	5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**	**0.0000**	**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3352	11.3797	4.1867	0.0395	1.1053	0.0144	1.1197	0.3181	0.0138	0.3318		4,322.2310	4,322.2310	0.3362		4,330.6355
Worker	1.6237	0.8318	10.4706	0.0411	5.1753	0.0317	5.2070	1.3725	0.0292	1.4017		4,100.4487	4,100.4487	0.0737		4,102.2902
Total	**1.9589**	**12.2116**	**14.6573**	**0.0806**	**6.2805**	**0.0462**	**6.3267**	**1.6906**	**0.0430**	**1.7335**		**8,422.6798**	**8,422.6798**	**0.4098**		**8,432.9256**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653		5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**		**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3264	11.2329	4.1339	0.0392	1.1052	0.0141	1.1193	0.3181	0.0134	0.3315		4,296.1841	4,296.1841	0.3312		4,304.4647
Worker	1.5559	0.7629	9.7677	0.0394	5.1753	0.0313	5.2066	1.3725	0.0288	1.4013		3,934.8435	3,934.8435	0.0673		3,936.5268
Total	**1.8823**	**11.9959**	**13.9016**	**0.0786**	**6.2805**	**0.0454**	**6.3259**	**1.6906**	**0.0423**	**1.7328**		**8,231.0276**	**8,231.0276**	**0.3986**		**8,240.9915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653	0.0000	5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**	**0.0000**	**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3264	11.2329	4.1339	0.0392	1.1052	0.0141	1.1193	0.3181	0.0134	0.3315		4,296.1841	4,296.1841	0.3312		4,304.4647
Worker	1.5559	0.7629	9.7677	0.0394	5.1753	0.0313	5.2066	1.3725	0.0288	1.4013		3,934.8435	3,934.8435	0.0673		3,936.5268
Total	**1.8823**	**11.9959**	**13.9016**	**0.0786**	**6.2805**	**0.0454**	**6.3259**	**1.6906**	**0.0423**	**1.7328**		**8,231.0276**	**8,231.0276**	**0.3986**		**8,240.9915**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.5934					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**21.7642**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.5 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3125	0.1532	1.9620	7.9200e-003	1.0395	6.2900e-003	1.0458	0.2757	5.7900e-003	0.2815		790.3681	790.3681	0.0135		790.7063
Total	**0.3125**	**0.1532**	**1.9620**	**7.9200e-003**	**1.0395**	**6.2900e-003**	**1.0458**	**0.2757**	**5.7900e-003**	**0.2815**		**790.3681**	**790.3681**	**0.0135**		**790.7063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.5934					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**21.7642**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.5 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3125	0.1532	1.9620	7.9200e-003	1.0395	6.2900e-003	1.0458	0.2757	5.7900e-003	0.2815		790.3681	790.3681	0.0135		790.7063
Total	**0.3125**	**0.1532**	**1.9620**	**7.9200e-003**	**1.0395**	**6.2900e-003**	**1.0458**	**0.2757**	**5.7900e-003**	**0.2815**		**790.3681**	**790.3681**	**0.0135**		**790.7063**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1175**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0247	0.3165	1.2800e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		127.4787	127.4787	2.1800e-003		127.5333
Total	**0.0504**	**0.0247**	**0.3165**	**1.2800e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**127.4787**	**127.4787**	**2.1800e-003**		**127.5333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1175**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0247	0.3165	1.2800e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		127.4787	127.4787	2.1800e-003		127.5333
Total	**0.0504**	**0.0247**	**0.3165**	**1.2800e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**127.4787**	**127.4787**	**2.1800e-003**		**127.5333**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.3536	23.8266	77.2440	0.3266	35.3551	0.2390	35.5941	9.4538	0.2215	9.6754		33,324.3364	33,324.3364	1.3242		33,357.4418
Unmitigated	6.3536	23.8266	77.2440	0.3266	35.3551	0.2390	35.5941	9.4538	0.2215	9.6754		33,324.3364	33,324.3364	1.3242		33,357.4418

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	87.00	68.25	87.00	242,638	242,638
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,728.60	1,732.90	1728.60	4,126,201	4,126,201
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,561.04	1,826.85	1561.04	4,057,147	4,057,147
Single Family Housing	2,150.00	2,237.50	2150.00	7,389,591	7,389,591
Total	5,526.64	5,865.50	5,526.64	15,815,577	15,815,577

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	65	35	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Enclosed Parking Structure	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Hotel	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Parking Lot	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Regional Shopping Center	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Single Family Housing	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151
NaturalGas Unmitigated	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	19799.3	0.2135	1.9411	1.6305	0.0117		0.1475	0.1475		0.1475	0.1475		2,329.3312	2,329.3312	0.0447	0.0427	2,343.1732
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	104.11	1.1200e-003	0.0102	8.5700e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2482	12.2482	2.3000e-004	2.2000e-004	12.3210
Single Family Housing	17674.6	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.4053**	**3.5802**	**2.3322**	**0.0221**		**0.2800**	**0.2800**		**0.2800**	**0.2800**		**4,420.9436**	**4,420.9436**	**0.0847**	**0.0810**	**4,447.2151**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	19.7993	0.2135	1.9411	1.6305	0.0117		0.1475	0.1475		0.1475	0.1475		2,329.3312	2,329.3312	0.0447	0.0427	2,343.1732
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.10411	1.1200e-003	0.0102	8.5700e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2482	12.2482	2.3000e-004	2.2000e-004	12.3210
Single Family Housing	17.6746	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.4053**	**3.5802**	**2.3322**	**0.0221**		**0.2800**	**0.2800**		**0.2800**	**0.2800**		**4,420.9436**	**4,420.9436**	**0.0847**	**0.0810**	**4,447.2151**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341
Unmitigated	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3962					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6595					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6334	0.2388	20.7656	1.1000e-003		0.1149	0.1149		0.1149	0.1149		37.4815	37.4815	0.0365		38.3929
Total	**16.1015**	**3.7638**	**22.2656**	**0.0236**		**0.3999**	**0.3999**		**0.3999**	**0.3999**	**0.0000**	**4,537.4815**	**4,537.4815**	**0.1227**	**0.0825**	**4,565.1341**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3962					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6595					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6334	0.2388	20.7656	1.1000e-003		0.1149	0.1149		0.1149	0.1149		37.4815	37.4815	0.0365		38.3929
Total	**16.1015**	**3.7638**	**22.2656**	**0.0236**		**0.3999**	**0.3999**		**0.3999**	**0.3999**	**0.0000**	**4,537.4815**	**4,537.4815**	**0.1227**	**0.0825**	**4,565.1341**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.01	36	903	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**0.0148**	**0.0663**	**0.0378**	**7.0000e-005**		**2.1800e-003**	**2.1800e-003**		**2.1800e-003**	**2.1800e-003**		**7.5808**	**7.5808**	**1.0600e-003**		**7.6074**

11.0 Vegetation

Magnolia Tank Farm EIR- Full Buildout, Project

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	500.00	Space	4.50	200,000.00	0
Parking Lot	832.00	Space	7.49	332,800.00	0
City Park	3.00	Acre	2.90	130,680.00	0
Hotel	215.00	Room	3.90	211,000.00	0
Single Family Housing	250.00	Dwelling Unit	18.90	450,000.00	715
Regional Shopping Center	19.00	1000sqft	0.40	19,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	529	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Matches DEIR's model.

Land Use - Matches DEIR's model, except see SWAPE comments regarding parking.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Matches DEIR's model.

Grading -

Vehicle Trips - See SWAPE comments regarding Weekday and Sunday trip rates.

Woodstoves - Matches DEIR's model.

Energy Use -

Water And Wastewater - Matches DEIR's model.

Construction Off-road Equipment Mitigation - Matches DEIR's model.

Area Mitigation -

Energy Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	30.00	54.00
tblConstructionPhase	NumDays	75.00	121.00
tblConstructionPhase	NumDays	740.00	1,195.00
tblConstructionPhase	NumDays	55.00	236.00

tblConstructionPhase	NumDays	55.00	97.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberNoFireplace	25.00	0.00
tblFireplaces	NumberWood	12.50	0.00
tblGrading	MaterialImported	0.00	120,000.00
tblLandUse	LandUseSquareFeet	312,180.00	211,000.00
tblLandUse	LotAcreage	3.00	2.90
tblLandUse	LotAcreage	7.17	3.90
tblLandUse	LotAcreage	81.17	18.90
tblLandUse	LotAcreage	0.44	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	529
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	903.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,143.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	54.00	65.00
tblVehicleTrips	ST_TR	8.19	8.06
tblVehicleTrips	ST_TR	49.97	96.15
tblVehicleTrips	ST_TR	9.91	8.95

tblVehicleTrips	SU_TR	16.74	29.00
tblVehicleTrips	SU_TR	5.95	8.04
tblVehicleTrips	SU_TR	25.24	82.16
tblVehicleTrips	SU_TR	8.62	8.60
tblVehicleTrips	WD_TR	1.89	29.00
tblVehicleTrips	WD_TR	8.17	8.04
tblVehicleTrips	WD_TR	42.70	82.16
tblVehicleTrips	WD_TR	9.52	8.60
tblWater	IndoorWaterUseRate	5,453,855.55	8,870,117.00
tblWater	IndoorWaterUseRate	1,407,377.91	2,288,951.00
tblWater	IndoorWaterUseRate	16,288,506.41	26,491,526.00
tblWater	OutdoorWaterUseRate	3,574,444.05	5,813,454.00
tblWater	OutdoorWaterUseRate	605,983.95	985,569.00
tblWater	OutdoorWaterUseRate	862,586.46	1,402,905.00
tblWater	OutdoorWaterUseRate	10,268,840.99	16,701,179.00
tblWoodstoves	NumberCatalytic	12.50	0.00
tblWoodstoves	NumberNoncatalytic	12.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.1607	103.8766	55.5415	0.2018	18.2675	2.9331	20.3132	9.9840	2.7026	11.8661	0.0000	21,143.9294	21,143.9294	4.1356	0.0000	21,247.3207
2022	4.3919	38.6856	39.8620	0.1445	6.2805	1.0895	7.3700	1.6906	1.0202	2.7108	0.0000	14,590.5779	14,590.5779	1.9463	0.0000	14,639.2354
2023	4.0442	32.9243	38.5495	0.1414	6.2805	0.9441	7.2246	1.6906	0.8837	2.5743	0.0000	14,276.7461	14,276.7461	1.9103	0.0000	14,324.5043
2024	3.8437	31.3485	37.5601	0.1392	6.2805	0.8466	7.1271	1.6906	0.7921	2.4826	0.0000	14,068.9027	14,068.9027	1.8959	0.0000	14,116.3001
2025	25.7014	31.3418	40.6151	0.1485	7.3200	0.8138	8.1338	1.9662	0.7642	2.7304	0.0000	14,983.1336	14,983.1336	1.9112	0.0000	15,030.9126
Maximum	**25.7014**	**103.8766**	**55.5415**	**0.2018**	**18.2675**	**2.9331**	**20.3132**	**9.9840**	**2.7026**	**11.8661**	**0.0000**	**21,143.9294**	**21,143.9294**	**4.1356**	**0.0000**	**21,247.3207**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.9342	89.8978	59.8348	0.2018	18.2675	2.3612	20.3132	9.9840	2.2639	11.8661	0.0000	21,143.9294	21,143.9294	4.1356	0.0000	21,247.3207
2022	4.3919	38.6856	39.8620	0.1445	6.2805	1.0895	7.3700	1.6906	1.0202	2.7108	0.0000	14,590.5779	14,590.5779	1.9463	0.0000	14,639.2354
2023	4.0442	32.9243	38.5495	0.1414	6.2805	0.9441	7.2246	1.6906	0.8837	2.5743	0.0000	14,276.7461	14,276.7461	1.9103	0.0000	14,324.5043
2024	3.8437	31.3485	37.5601	0.1392	6.2805	0.8466	7.1271	1.6906	0.7921	2.4826	0.0000	14,068.9027	14,068.9027	1.8959	0.0000	14,116.3001
2025	25.7014	31.3418	40.6151	0.1485	7.3200	0.8138	8.1338	1.9662	0.7642	2.7304	0.0000	14,983.1336	14,983.1336	1.9112	0.0000	15,030.9126
Maximum	**25.7014**	**89.8978**	**59.8348**	**0.2018**	**18.2675**	**2.3612**	**20.3132**	**9.9840**	**2.2639**	**11.8661**	**0.0000**	**21,143.9294**	**21,143.9294**	**4.1356**	**0.0000**	**21,247.3207**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.93**	**5.87**	**-2.02**	**0.00**	**0.00**	**8.63**	**0.00**	**0.00**	**7.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341
Energy	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151
Mobile	6.4793	23.3271	80.5200	0.3415	35.3551	0.2383	35.5934	9.4538	0.2208	9.6746		34,828.0201	34,828.0201	1.3230		34,861.0947
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**23.0009**	**30.7373**	**105.1555**	**0.3873**	**35.3551**	**0.9203**	**36.2754**	**9.4538**	**0.9029**	**10.3567**	**0.0000**	**43,794.0260**	**43,794.0260**	**1.5315**	**0.1636**	**43,881.0512**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341
Energy	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151
Mobile	6.4793	23.3271	80.5200	0.3415	35.3551	0.2383	35.5934	9.4538	0.2208	9.6746		34,828.0201	34,828.0201	1.3230		34,861.0947
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**23.0009**	**30.7373**	**105.1555**	**0.3873**	**35.3551**	**0.9203**	**36.2754**	**9.4538**	**0.9029**	**10.3567**	**0.0000**	**43,794.0260**	**43,794.0260**	**1.5315**	**0.1636**	**43,881.0512**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/4/2021	6	54	
2	Grading	Grading	3/5/2021	7/23/2021	6	121	
3	Building Construction	Building Construction	7/26/2021	5/19/2025	6	1195	
4	Architectural Coating	Architectural Coating	4/1/2025	12/31/2025	6	236	
5	Paving	Paving	5/20/2025	9/9/2025	6	97	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 544.5

Acres of Paving: 11.99

Residential Indoor: 911,250; Residential Outdoor: 303,750; Non-Residential Indoor: 345,000; Non-Residential Outdoor: 115,000; Striped Parking Area: 31,968 (Architectural Coating – sqft)

OffRoad Equipment

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Bore/Drill Rigs	3	8.00	221	0.50
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	17,143.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	463.00	173.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	93.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963
Total	**0.0650**	**0.0393**	**0.5467**	**1.9000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**189.3950**	**189.3950**	**4.0600e-003**		**189.4963**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963
Total	**0.0650**	**0.0393**	**0.5467**	**1.9000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**189.3950**	**189.3950**	**4.0600e-003**		**189.4963**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	6.0501	67.8054	44.8878	0.0923		2.8181	2.8181		2.5927	2.5927		8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**6.0501**	**67.8054**	**44.8878**	**0.0923**	**10.7943**	**2.8181**	**13.6124**	**3.8255**	**2.5927**	**6.4182**		**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0204	36.0166	9.8943	0.1069	2.4667	0.1132	2.5798	0.6752	0.1083	0.7835		11,938.0144	11,938.0144	1.2377		11,968.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0902	0.0546	0.7593	2.6400e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		263.0485	263.0485	5.6300e-003		263.1894
Total	**1.1106**	**36.0712**	**10.6536**	**0.1095**	**2.7461**	**0.1150**	**2.8611**	**0.7494**	**0.1099**	**0.8593**		**12,201.0630**	**12,201.0630**	**1.2433**		**12,232.1466**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	3.8236	53.8266	49.1811	0.0923		2.2462	2.2462		2.1540	2.1540	0.0000	8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**3.8236**	**53.8266**	**49.1811**	**0.0923**	**10.7943**	**2.2462**	**13.0406**	**3.8255**	**2.1540**	**5.9795**	**0.0000**	**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0204	36.0166	9.8943	0.1069	2.4667	0.1132	2.5798	0.6752	0.1083	0.7835		11,938.0144	11,938.0144	1.2377		11,968.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0902	0.0546	0.7593	2.6400e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		263.0485	263.0485	5.6300e-003		263.1894
Total	**1.1106**	**36.0712**	**10.6536**	**0.1095**	**2.7461**	**0.1150**	**2.8611**	**0.7494**	**0.1099**	**0.8593**		**12,201.0630**	**12,201.0630**	**1.2433**		**12,232.1466**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542		5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**		**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4616	16.2299	4.4016	0.0427	1.1053	0.0337	1.1390	0.3181	0.0322	0.3503		4,650.1103	4,650.1103	0.3646		4,659.2261
Worker	1.6711	1.0112	14.0627	0.0489	5.1753	0.0335	5.2088	1.3725	0.0308	1.4033		4,871.6589	4,871.6589	0.1043		4,874.2670
Total	**2.1328**	**17.2410**	**18.4643**	**0.0915**	**6.2806**	**0.0672**	**6.3478**	**1.6906**	**0.0631**	**1.7537**		**9,521.7692**	**9,521.7692**	**0.4690**		**9,533.4931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542	0.0000	5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**	**0.0000**	**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4616	16.2299	4.4016	0.0427	1.1053	0.0337	1.1390	0.3181	0.0322	0.3503		4,650.1103	4,650.1103	0.3646		4,659.2261
Worker	1.6711	1.0112	14.0627	0.0489	5.1753	0.0335	5.2088	1.3725	0.0308	1.4033		4,871.6589	4,871.6589	0.1043		4,874.2670
Total	**2.1328**	**17.2410**	**18.4643**	**0.0915**	**6.2806**	**0.0672**	**6.3478**	**1.6906**	**0.0631**	**1.7537**		**9,521.7692**	**9,521.7692**	**0.4690**		**9,533.4931**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620		5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**		**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4340	15.3546	4.2501	0.0422	1.1053	0.0293	1.1346	0.3181	0.0281	0.3461		4,604.4402	4,604.4402	0.3532		4,613.2705
Worker	1.5794	0.9161	13.1250	0.0470	5.1753	0.0329	5.2081	1.3725	0.0302	1.4027		4,691.1217	4,691.1217	0.0948		4,693.4904
Total	**2.0134**	**16.2707**	**17.3751**	**0.0892**	**6.2805**	**0.0622**	**6.3427**	**1.6906**	**0.0583**	**1.7489**		**9,295.5619**	**9,295.5619**	**0.4480**		**9,306.7609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620	0.0000	5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**	**0.0000**	**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4340	15.3546	4.2501	0.0422	1.1053	0.0293	1.1346	0.3181	0.0281	0.3461		4,604.4402	4,604.4402	0.3532		4,613.2705
Worker	1.5794	0.9161	13.1250	0.0470	5.1753	0.0329	5.2081	1.3725	0.0302	1.4027		4,691.1217	4,691.1217	0.0948		4,693.4904
Total	**2.0134**	**16.2707**	**17.3751**	**0.0892**	**6.2805**	**0.0622**	**6.3427**	**1.6906**	**0.0583**	**1.7489**		**9,295.5619**	**9,295.5619**	**0.4480**		**9,306.7609**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407		5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**		**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3303	11.5890	3.9668	0.0408	1.1053	0.0140	1.1192	0.3181	0.0133	0.3314		4,464.5513	4,464.5513	0.3284		4,472.7604
Worker	1.4957	0.8317	12.2401	0.0452	5.1753	0.0323	5.2075	1.3725	0.0297	1.4022		4,510.7751	4,510.7751	0.0859		4,512.9236
Total	**1.8260**	**12.4207**	**16.2069**	**0.0860**	**6.2805**	**0.0462**	**6.3268**	**1.6906**	**0.0431**	**1.7336**		**8,975.3264**	**8,975.3264**	**0.4143**		**8,985.6840**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407	0.0000	5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**	**0.0000**	**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3303	11.5890	3.9668	0.0408	1.1053	0.0140	1.1192	0.3181	0.0133	0.3314		4,464.5513	4,464.5513	0.3284		4,472.7604
Worker	1.4957	0.8317	12.2401	0.0452	5.1753	0.0323	5.2075	1.3725	0.0297	1.4022		4,510.7751	4,510.7751	0.0859		4,512.9236
Total	**1.8260**	**12.4207**	**16.2069**	**0.0860**	**6.2805**	**0.0462**	**6.3268**	**1.6906**	**0.0431**	**1.7336**		**8,975.3264**	**8,975.3264**	**0.4143**		**8,985.6840**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498		5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**		**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3191	11.4443	3.8844	0.0404	1.1053	0.0137	1.1189	0.3181	0.0131	0.3311		4,429.0865	4,429.0865	0.3234		4,437.1722
Worker	1.4214	0.7574	11.3938	0.0434	5.1753	0.0317	5.2070	1.3725	0.0292	1.4017		4,332.0272	4,332.0272	0.0780		4,333.9782
Total	**1.7406**	**12.2018**	**15.2782**	**0.0838**	**6.2805**	**0.0454**	**6.3259**	**1.6906**	**0.0423**	**1.7328**		**8,761.1138**	**8,761.1138**	**0.4015**		**8,771.1504**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498	0.0000	5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**	**0.0000**	**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3191	11.4443	3.8844	0.0404	1.1053	0.0137	1.1189	0.3181	0.0131	0.3311		4,429.0865	4,429.0865	0.3234		4,437.1722
Worker	1.4214	0.7574	11.3938	0.0434	5.1753	0.0317	5.2070	1.3725	0.0292	1.4017		4,332.0272	4,332.0272	0.0780		4,333.9782
Total	**1.7406**	**12.2018**	**15.2782**	**0.0838**	**6.2805**	**0.0454**	**6.3259**	**1.6906**	**0.0423**	**1.7328**		**8,761.1138**	**8,761.1138**	**0.4015**		**8,771.1504**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653		5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**		**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3110	11.2961	3.8396	0.0401	1.1052	0.0134	1.1186	0.3181	0.0128	0.3308		4,401.6343	4,401.6343	0.3192		4,409.6137
Worker	1.3581	0.6948	10.6365	0.0417	5.1753	0.0313	5.2066	1.3725	0.0288	1.4013		4,156.8626	4,156.8626	0.0714		4,158.6470
Total	**1.6691**	**11.9908**	**14.4760**	**0.0818**	**6.2805**	**0.0447**	**6.3252**	**1.6906**	**0.0416**	**1.7322**		**8,558.4969**	**8,558.4969**	**0.3906**		**8,568.2607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653	0.0000	5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**	**0.0000**	**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3110	11.2961	3.8396	0.0401	1.1052	0.0134	1.1186	0.3181	0.0128	0.3308		4,401.6343	4,401.6343	0.3192		4,409.6137
Worker	1.3581	0.6948	10.6365	0.0417	5.1753	0.0313	5.2066	1.3725	0.0288	1.4013		4,156.8626	4,156.8626	0.0714		4,158.6470
Total	**1.6691**	**11.9908**	**14.4760**	**0.0818**	**6.2805**	**0.0447**	**6.3252**	**1.6906**	**0.0416**	**1.7322**		**8,558.4969**	**8,558.4969**	**0.3906**		**8,568.2607**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.5934					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**21.7642**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.5 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2728	0.1396	2.1365	8.3700e-003	1.0395	6.2900e-003	1.0458	0.2757	5.7900e-003	0.2815		834.9638	834.9638	0.0143		835.3222
Total	**0.2728**	**0.1396**	**2.1365**	**8.3700e-003**	**1.0395**	**6.2900e-003**	**1.0458**	**0.2757**	**5.7900e-003**	**0.2815**		**834.9638**	**834.9638**	**0.0143**		**835.3222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.5934					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**21.7642**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.5 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2728	0.1396	2.1365	8.3700e-003	1.0395	6.2900e-003	1.0458	0.2757	5.7900e-003	0.2815		834.9638	834.9638	0.0143		835.3222
Total	**0.2728**	**0.1396**	**2.1365**	**8.3700e-003**	**1.0395**	**6.2900e-003**	**1.0458**	**0.2757**	**5.7900e-003**	**0.2815**		**834.9638**	**834.9638**	**0.0143**		**835.3222**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1175**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0440	0.0225	0.3446	1.3500e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		134.6716	134.6716	2.3100e-003		134.7294
Total	**0.0440**	**0.0225**	**0.3446**	**1.3500e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**134.6716**	**134.6716**	**2.3100e-003**		**134.7294**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1175**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0440	0.0225	0.3446	1.3500e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		134.6716	134.6716	2.3100e-003		134.7294
Total	**0.0440**	**0.0225**	**0.3446**	**1.3500e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**134.6716**	**134.6716**	**2.3100e-003**		**134.7294**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4793	23.3271	80.5200	0.3415	35.3551	0.2383	35.5934	9.4538	0.2208	9.6746		34,828.0201	34,828.0201	1.3230		34,861.0947
Unmitigated	6.4793	23.3271	80.5200	0.3415	35.3551	0.2383	35.5934	9.4538	0.2208	9.6746		34,828.0201	34,828.0201	1.3230		34,861.0947

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	87.00	68.25	87.00	242,638	242,638
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,728.60	1,732.90	1728.60	4,126,201	4,126,201
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,561.04	1,826.85	1561.04	4,057,147	4,057,147
Single Family Housing	2,150.00	2,237.50	2150.00	7,389,591	7,389,591
Total	5,526.64	5,865.50	5,526.64	15,815,577	15,815,577

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	65	35	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Enclosed Parking Structure	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Hotel	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Parking Lot	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Regional Shopping Center	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Single Family Housing	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151
NaturalGas Unmitigated	0.4053	3.5802	2.3322	0.0221		0.2800	0.2800		0.2800	0.2800		4,420.9436	4,420.9436	0.0847	0.0811	4,447.2151

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	19799.3	0.2135	1.9411	1.6305	0.0117		0.1475	0.1475		0.1475	0.1475		2,329.3312	2,329.3312	0.0447	0.0427	2,343.1732
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	104.11	1.1200e-003	0.0102	8.5700e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2482	12.2482	2.3000e-004	2.2000e-004	12.3210
Single Family Housing	17674.6	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.4053**	**3.5802**	**2.3322**	**0.0221**		**0.2800**	**0.2800**		**0.2800**	**0.2800**		**4,420.9436**	**4,420.9436**	**0.0847**	**0.0810**	**4,447.2151**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	19.7993	0.2135	1.9411	1.6305	0.0117		0.1475	0.1475		0.1475	0.1475		2,329.3312	2,329.3312	0.0447	0.0427	2,343.1732
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.10411	1.1200e-003	0.0102	8.5700e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2482	12.2482	2.3000e-004	2.2000e-004	12.3210
Single Family Housing	17.6746	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.4053**	**3.5802**	**2.3322**	**0.0221**		**0.2800**	**0.2800**		**0.2800**	**0.2800**		**4,420.9436**	**4,420.9436**	**0.0847**	**0.0810**	**4,447.2151**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341
Unmitigated	16.1015	3.7638	22.2656	0.0236		0.3999	0.3999		0.3999	0.3999	0.0000	4,537.4815	4,537.4815	0.1227	0.0825	4,565.1341

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3962					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6595					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6334	0.2388	20.7656	1.1000e-003		0.1149	0.1149		0.1149	0.1149		37.4815	37.4815	0.0365		38.3929
Total	**16.1015**	**3.7638**	**22.2656**	**0.0236**		**0.3999**	**0.3999**		**0.3999**	**0.3999**	**0.0000**	**4,537.4815**	**4,537.4815**	**0.1227**	**0.0825**	**4,565.1341**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3962					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6595					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6334	0.2388	20.7656	1.1000e-003		0.1149	0.1149		0.1149	0.1149		37.4815	37.4815	0.0365		38.3929
Total	**16.1015**	**3.7638**	**22.2656**	**0.0236**		**0.3999**	**0.3999**		**0.3999**	**0.3999**	**0.0000**	**4,537.4815**	**4,537.4815**	**0.1227**	**0.0825**	**4,565.1341**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.01	36	903	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**0.0148**	**0.0663**	**0.0378**	**7.0000e-005**		**2.1800e-003**	**2.1800e-003**		**2.1800e-003**	**2.1800e-003**		**7.5808**	**7.5808**	**1.0600e-003**		**7.6074**

11.0 Vegetation

Magnolia Tank Farm EIR- Full Buildout, Project

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	500.00	Space	4.50	200,000.00	0
Parking Lot	832.00	Space	7.49	332,800.00	0
City Park	3.00	Acre	2.90	130,680.00	0
Hotel	215.00	Room	3.90	211,000.00	0
Single Family Housing	250.00	Dwelling Unit	18.90	450,000.00	715
Regional Shopping Center	19.00	1000sqft	0.40	19,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	529	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Matches DEIR's model.

Land Use - Matches DEIR's model, except see SWAPE comments regarding parking.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Matches DEIR's model.

Grading -

Vehicle Trips - See SWAPE comments regarding Weekday and Sunday trip rates.

Woodstoves - Matches DEIR's model.

Energy Use -

Water And Wastewater - Matches DEIR's model.

Construction Off-road Equipment Mitigation - Matches DEIR's model.

Area Mitigation -

Energy Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	30.00	54.00
tblConstructionPhase	NumDays	75.00	121.00
tblConstructionPhase	NumDays	740.00	1,195.00
tblConstructionPhase	NumDays	55.00	236.00

tblConstructionPhase	NumDays	55.00	97.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberNoFireplace	25.00	0.00
tblFireplaces	NumberWood	12.50	0.00
tblGrading	MaterialImported	0.00	120,000.00
tblLandUse	LandUseSquareFeet	312,180.00	211,000.00
tblLandUse	LotAcreage	3.00	2.90
tblLandUse	LotAcreage	7.17	3.90
tblLandUse	LotAcreage	81.17	18.90
tblLandUse	LotAcreage	0.44	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	529
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	903.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,143.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	54.00	65.00
tblVehicleTrips	ST_TR	8.19	8.06
tblVehicleTrips	ST_TR	49.97	96.15
tblVehicleTrips	ST_TR	9.91	8.95

tblVehicleTrips	SU_TR	16.74	29.00
tblVehicleTrips	SU_TR	5.95	8.04
tblVehicleTrips	SU_TR	25.24	82.16
tblVehicleTrips	SU_TR	8.62	8.60
tblVehicleTrips	WD_TR	1.89	29.00
tblVehicleTrips	WD_TR	8.17	8.04
tblVehicleTrips	WD_TR	42.70	82.16
tblVehicleTrips	WD_TR	9.52	8.60
tblWater	IndoorWaterUseRate	5,453,855.55	8,870,117.00
tblWater	IndoorWaterUseRate	1,407,377.91	2,288,951.00
tblWater	IndoorWaterUseRate	16,288,506.41	26,491,526.00
tblWater	OutdoorWaterUseRate	3,574,444.05	5,813,454.00
tblWater	OutdoorWaterUseRate	605,983.95	985,569.00
tblWater	OutdoorWaterUseRate	862,586.46	1,402,905.00
tblWater	OutdoorWaterUseRate	10,268,840.99	16,701,179.00
tblWoodstoves	NumberCatalytic	12.50	0.00
tblWoodstoves	NumberNoncatalytic	12.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.8725	10.4699	6.7452	0.0231	1.7325	0.3219	2.0543	0.6597	0.2978	0.9575	0.0000	2,156.0588	2,156.0588	0.3796	0.0000	2,165.5481
2022	0.6928	6.1074	6.1573	0.0223	0.9659	0.1706	1.1365	0.2604	0.1597	0.4201	0.0000	2,038.6855	2,038.6855	0.2768	0.0000	2,045.6062
2023	0.6361	5.1696	5.9320	0.0217	0.9628	0.1473	1.1101	0.2596	0.1379	0.3975	0.0000	1,989.0931	1,989.0931	0.2707	0.0000	1,995.8608
2024	0.6088	4.9533	5.8200	0.0215	0.9690	0.1330	1.1020	0.2612	0.1244	0.3856	0.0000	1,973.3232	1,973.3232	0.2704	0.0000	1,980.0827
2025	2.8775	2.3709	3.3285	0.0105	0.4957	0.0722	0.5679	0.1331	0.0676	0.2007	0.0000	956.1575	956.1575	0.1363	0.0000	959.5650
Maximum	**2.8775**	**10.4699**	**6.7452**	**0.0231**	**1.7325**	**0.3219**	**2.0543**	**0.6597**	**0.2978**	**0.9575**	**0.0000**	**2,156.0588**	**2,156.0588**	**0.3796**	**0.0000**	**2,165.5481**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7378	9.6242	7.0050	0.0231	1.7325	0.2873	2.0197	0.6597	0.2713	0.9309	0.0000	2,156.0577	2,156.0577	0.3796	0.0000	2,165.5470
2022	0.6928	6.1074	6.1573	0.0223	0.9659	0.1706	1.1365	0.2604	0.1597	0.4201	0.0000	2,038.6846	2,038.6846	0.2768	0.0000	2,045.6053
2023	0.6361	5.1696	5.9320	0.0217	0.9628	0.1473	1.1101	0.2596	0.1379	0.3975	0.0000	1,989.0922	1,989.0922	0.2707	0.0000	1,995.8599
2024	0.6088	4.9533	5.8200	0.0215	0.9690	0.1330	1.1020	0.2612	0.1244	0.3856	0.0000	1,973.3223	1,973.3223	0.2704	0.0000	1,980.0817
2025	2.8775	2.3709	3.3285	0.0105	0.4957	0.0722	0.5679	0.1331	0.0676	0.2007	0.0000	956.1570	956.1570	0.1363	0.0000	959.5645
Maximum	**2.8775**	**9.6242**	**7.0050**	**0.0231**	**1.7325**	**0.2873**	**2.0197**	**0.6597**	**0.2713**	**0.9309**	**0.0000**	**2,156.0577**	**2,156.0577**	**0.3796**	**0.0000**	**2,165.5470**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.37**	**2.91**	**-0.93**	**0.00**	**0.00**	**4.09**	**0.58**	**0.00**	**3.37**	**1.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	2.4918	2.3043
2	4-1-2021	6-30-2021	4.3305	3.6984
3	7-1-2021	9-30-2021	2.4886	2.3288
4	10-1-2021	12-31-2021	1.9263	1.9263
5	1-1-2022	3-31-2022	1.6723	1.6723
6	4-1-2022	6-30-2022	1.6800	1.6800

7	**7-1-2022**	**9-30-2022**	1.6985	1.6985
8	**10-1-2022**	**12-31-2022**	1.7095	1.7095
9	**1-1-2023**	**3-31-2023**	1.4352	1.4352
10	**4-1-2023**	**6-30-2023**	1.4418	1.4418
11	**7-1-2023**	**9-30-2023**	1.4576	1.4576
12	**10-1-2023**	**12-31-2023**	1.4670	1.4670
13	**1-1-2024**	**3-31-2024**	1.3814	1.3814
14	**4-1-2024**	**6-30-2024**	1.3725	1.3725
15	**7-1-2024**	**9-30-2024**	1.3876	1.3876
16	**10-1-2024**	**12-31-2024**	1.3966	1.3966
17	**1-1-2025**	**3-31-2025**	1.3091	1.3091
18	**4-1-2025**	**6-30-2025**	1.7935	1.7935
19	**7-1-2025**	**9-30-2025**	1.2167	1.2167
		Highest	4.3305	3.6984

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8320	0.0739	2.6144	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2795	55.2795	5.1100e-003	9.4000e-004	55.6861
Energy	0.0740	0.6534	0.4256	4.0300e-003		0.0511	0.0511		0.0511	0.0511	0.0000	2,022.8494	2,022.8494	0.0848	0.0281	2,033.3313
Mobile	1.0619	4.1723	13.5034	0.0571	5.9987	0.0412	6.0399	1.6064	0.0381	1.6445	0.0000	5,284.5138	5,284.5138	0.2066	0.0000	5,289.6791
Stationary	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Waste						0.0000	0.0000		0.0000	0.0000	87.5033	0.0000	87.5033	5.1713	0.0000	216.7858
Water						0.0000	0.0000		0.0000	0.0000	11.9448	184.0232	195.9680	1.2369	0.0311	236.1459
Total	**3.9945**	**5.0188**	**16.6115**	**0.0617**	**5.9987**	**0.1141**	**6.1128**	**1.6064**	**0.1111**	**1.7175**	**99.4481**	**7,559.0448**	**7,658.4929**	**6.7065**	**0.0601**	**7,844.0505**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8320	0.0739	2.6144	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2795	55.2795	5.1100e-003	9.4000e-004	55.6861
Energy	0.0740	0.6534	0.4256	4.0300e-003		0.0511	0.0511		0.0511	0.0511	0.0000	2,022.8494	2,022.8494	0.0848	0.0281	2,033.3313
Mobile	1.0619	4.1723	13.5034	0.0571	5.9987	0.0412	6.0399	1.6064	0.0381	1.6445	0.0000	5,284.5138	5,284.5138	0.2066	0.0000	5,289.6791
Stationary	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Waste						0.0000	0.0000		0.0000	0.0000	87.5033	0.0000	87.5033	5.1713	0.0000	216.7858
Water						0.0000	0.0000		0.0000	0.0000	11.9448	184.0232	195.9680	1.2369	0.0311	236.1459
Total	**3.9945**	**5.0188**	**16.6115**	**0.0617**	**5.9987**	**0.1141**	**6.1128**	**1.6064**	**0.1111**	**1.7175**	**99.4481**	**7,559.0448**	**7,658.4929**	**6.7065**	**0.0601**	**7,844.0505**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/4/2021	6	54	
2	Grading	Grading	3/5/2021	7/23/2021	6	121	
3	Building Construction	Building Construction	7/26/2021	5/19/2025	6	1195	
4	Architectural Coating	Architectural Coating	4/1/2025	12/31/2025	6	236	
5	Paving	Paving	5/20/2025	9/9/2025	6	97	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 544.5

Acres of Paving: 11.99

Residential Indoor: 911,250; Residential Outdoor: 303,750; Non-Residential Indoor: 345,000; Non-Residential Outdoor: 115,000; Striped Parking Area: 31,968 (Architectural Coating – sqft)

OffRoad Equipment

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Bore/Drill Rigs	3	8.00	221	0.50
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	17,143.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	463.00	173.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	93.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4878	0.0000	0.4878	0.2681	0.0000	0.2681	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1050	1.0934	0.5712	1.0300e-003		0.0552	0.0552		0.0508	0.0508	0.0000	90.2764	90.2764	0.0292	0.0000	91.0064
Total	**0.1050**	**1.0934**	**0.5712**	**1.0300e-003**	**0.4878**	**0.0552**	**0.5430**	**0.2681**	**0.0508**	**0.3189**	**0.0000**	**90.2764**	**90.2764**	**0.0292**	**0.0000**	**91.0064**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2000e-003	0.0140	5.0000e-005	5.3400e-003	4.0000e-005	5.3700e-003	1.4200e-003	3.0000e-005	1.4500e-003	0.0000	4.4575	4.4575	1.0000e-004	0.0000	4.4599
Total	**1.7800e-003**	**1.2000e-003**	**0.0140**	**5.0000e-005**	**5.3400e-003**	**4.0000e-005**	**5.3700e-003**	**1.4200e-003**	**3.0000e-005**	**1.4500e-003**	**0.0000**	**4.4575**	**4.4575**	**1.0000e-004**	**0.0000**	**4.4599**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4878	0.0000	0.4878	0.2681	0.0000	0.2681	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1050	1.0934	0.5712	1.0300e-003		0.0552	0.0552		0.0508	0.0508	0.0000	90.2763	90.2763	0.0292	0.0000	91.0063
Total	**0.1050**	**1.0934**	**0.5712**	**1.0300e-003**	**0.4878**	**0.0552**	**0.5430**	**0.2681**	**0.0508**	**0.3189**	**0.0000**	**90.2763**	**90.2763**	**0.0292**	**0.0000**	**91.0063**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2000e-003	0.0140	5.0000e-005	5.3400e-003	4.0000e-005	5.3700e-003	1.4200e-003	3.0000e-005	1.4500e-003	0.0000	4.4575	4.4575	1.0000e-004	0.0000	4.4599
Total	**1.7800e-003**	**1.2000e-003**	**0.0140**	**5.0000e-005**	**5.3400e-003**	**4.0000e-005**	**5.3700e-003**	**1.4200e-003**	**3.0000e-005**	**1.4500e-003**	**0.0000**	**4.4575**	**4.4575**	**1.0000e-004**	**0.0000**	**4.4599**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6531	0.0000	0.6531	0.2314	0.0000	0.2314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3660	4.1022	2.7157	5.5900e-003		0.1705	0.1705		0.1569	0.1569	0.0000	490.8263	490.8263	0.1587	0.0000	494.7949
Total	**0.3660**	**4.1022**	**2.7157**	**5.5900e-003**	**0.6531**	**0.1705**	**0.8236**	**0.2314**	**0.1569**	**0.3883**	**0.0000**	**490.8263**	**490.8263**	**0.1587**	**0.0000**	**494.7949**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0624	2.2469	0.6117	6.4200e-003	0.1469	6.9000e-003	0.1538	0.0403	6.6000e-003	0.0469	0.0000	651.0443	651.0443	0.0686	0.0000	652.7591
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5400e-003	3.7300e-003	0.0435	1.5000e-004	0.0166	1.1000e-004	0.0167	4.4100e-003	1.0000e-004	4.5100e-003	0.0000	13.8725	13.8725	3.0000e-004	0.0000	13.8799
Total	**0.0679**	**2.2507**	**0.6552**	**6.5700e-003**	**0.1635**	**7.0100e-003**	**0.1705**	**0.0447**	**6.7000e-003**	**0.0514**	**0.0000**	**664.9168**	**664.9168**	**0.0689**	**0.0000**	**666.6390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6531	0.0000	0.6531	0.2314	0.0000	0.2314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2313	3.2565	2.9755	5.5900e-003		0.1359	0.1359		0.1303	0.1303	0.0000	490.8258	490.8258	0.1587	0.0000	494.7943
Total	**0.2313**	**3.2565**	**2.9755**	**5.5900e-003**	**0.6531**	**0.1359**	**0.7890**	**0.2314**	**0.1303**	**0.3618**	**0.0000**	**490.8258**	**490.8258**	**0.1587**	**0.0000**	**494.7943**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0624	2.2469	0.6117	6.4200e-003	0.1469	6.9000e-003	0.1538	0.0403	6.6000e-003	0.0469	0.0000	651.0443	651.0443	0.0686	0.0000	652.7591
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5400e-003	3.7300e-003	0.0435	1.5000e-004	0.0166	1.1000e-004	0.0167	4.4100e-003	1.0000e-004	4.5100e-003	0.0000	13.8725	13.8725	3.0000e-004	0.0000	13.8799
Total	**0.0679**	**2.2507**	**0.6552**	**6.5700e-003**	**0.1635**	**7.0100e-003**	**0.1705**	**0.0447**	**6.7000e-003**	**0.0514**	**0.0000**	**664.9168**	**664.9168**	**0.0689**	**0.0000**	**666.6390**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1833	1.8153	1.5616	3.7800e-003		0.0845	0.0845		0.0791	0.0791	0.0000	328.7041	328.7041	0.0933	0.0000	331.0359
Total	**0.1833**	**1.8153**	**1.5616**	**3.7800e-003**		**0.0845**	**0.0845**		**0.0791**	**0.0791**	**0.0000**	**328.7041**	**328.7041**	**0.0933**	**0.0000**	**331.0359**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0323	1.1290	0.3165	2.8900e-003	0.0746	2.3500e-003	0.0770	0.0215	2.2400e-003	0.0238	0.0000	285.9863	285.9863	0.0232	0.0000	286.5650
Worker	0.1162	0.0781	0.9111	3.2200e-003	0.3482	2.2900e-003	0.3505	0.0925	2.1100e-003	0.0946	0.0000	290.8912	290.8912	6.2300e-003	0.0000	291.0470
Total	**0.1485**	**1.2071**	**1.2276**	**6.1100e-003**	**0.4228**	**4.6400e-003**	**0.4274**	**0.1140**	**4.3500e-003**	**0.1183**	**0.0000**	**576.8775**	**576.8775**	**0.0294**	**0.0000**	**577.6120**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1833	1.8153	1.5616	3.7800e-003		0.0845	0.0845		0.0791	0.0791	0.0000	328.7037	328.7037	0.0933	0.0000	331.0355
Total	**0.1833**	**1.8153**	**1.5616**	**3.7800e-003**		**0.0845**	**0.0845**		**0.0791**	**0.0791**	**0.0000**	**328.7037**	**328.7037**	**0.0933**	**0.0000**	**331.0355**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0323	1.1290	0.3165	2.8900e-003	0.0746	2.3500e-003	0.0770	0.0215	2.2400e-003	0.0238	0.0000	285.9863	285.9863	0.0232	0.0000	286.5650
Worker	0.1162	0.0781	0.9111	3.2200e-003	0.3482	2.2900e-003	0.3505	0.0925	2.1100e-003	0.0946	0.0000	290.8912	290.8912	6.2300e-003	0.0000	291.0470
Total	**0.1485**	**1.2071**	**1.2276**	**6.1100e-003**	**0.4228**	**4.6400e-003**	**0.4274**	**0.1140**	**4.3500e-003**	**0.1183**	**0.0000**	**576.8775**	**576.8775**	**0.0294**	**0.0000**	**577.6120**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3722	3.5079	3.5192	8.6500e-003		0.1608	0.1608		0.1506	0.1506	0.0000	751.7568	751.7568	0.2127	0.0000	757.0749
Total	**0.3722**	**3.5079**	**3.5192**	**8.6500e-003**		**0.1608**	**0.1608**		**0.1506**	**0.1506**	**0.0000**	**751.7568**	**751.7568**	**0.2127**	**0.0000**	**757.0749**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0694	2.4378	0.6976	6.5300e-003	0.1704	4.6600e-003	0.1751	0.0492	4.4600e-003	0.0536	0.0000	646.9422	646.9422	0.0512	0.0000	648.2219
Worker	0.2512	0.1617	1.9405	7.0700e-003	0.7955	5.1400e-003	0.8006	0.2113	4.7300e-003	0.2160	0.0000	639.9865	639.9865	0.0129	0.0000	640.3094
Total	**0.3206**	**2.5995**	**2.6381**	**0.0136**	**0.9659**	**9.8000e-003**	**0.9757**	**0.2604**	**9.1900e-003**	**0.2696**	**0.0000**	**1,286.9287**	**1,286.9287**	**0.0641**	**0.0000**	**1,288.5313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3722	3.5079	3.5192	8.6500e-003		0.1608	0.1608		0.1506	0.1506	0.0000	751.7559	751.7559	0.2127	0.0000	757.0740
Total	**0.3722**	**3.5079**	**3.5192**	**8.6500e-003**		**0.1608**	**0.1608**		**0.1506**	**0.1506**	**0.0000**	**751.7559**	**751.7559**	**0.2127**	**0.0000**	**757.0740**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0694	2.4378	0.6976	6.5300e-003	0.1704	4.6600e-003	0.1751	0.0492	4.4600e-003	0.0536	0.0000	646.9422	646.9422	0.0512	0.0000	648.2219
Worker	0.2512	0.1617	1.9405	7.0700e-003	0.7955	5.1400e-003	0.8006	0.2113	4.7300e-003	0.2160	0.0000	639.9865	639.9865	0.0129	0.0000	640.3094
Total	**0.3206**	**2.5995**	**2.6381**	**0.0136**	**0.9659**	**9.8000e-003**	**0.9757**	**0.2604**	**9.1900e-003**	**0.2696**	**0.0000**	**1,286.9287**	**1,286.9287**	**0.0641**	**0.0000**	**1,288.5313**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3460	3.1986	3.4855	8.6300e-003		0.1401	0.1401		0.1312	0.1312	0.0000	750.2613	750.2613	0.2117	0.0000	755.5542
Total	**0.3460**	**3.1986**	**3.4855**	**8.6300e-003**		**0.1401**	**0.1401**		**0.1312**	**0.1312**	**0.0000**	**750.2613**	**750.2613**	**0.2117**	**0.0000**	**755.5542**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.8247	0.6448	6.3000e-003	0.1699	2.2300e-003	0.1721	0.0490	2.1300e-003	0.0511	0.0000	625.3928	625.3928	0.0473	0.0000	626.5759
Worker	0.2374	0.1463	1.8017	6.7800e-003	0.7929	5.0400e-003	0.7980	0.2106	4.6400e-003	0.2152	0.0000	613.4390	613.4390	0.0117	0.0000	613.7307
Total	**0.2901**	**1.9710**	**2.4465**	**0.0131**	**0.9628**	**7.2700e-003**	**0.9701**	**0.2596**	**6.7700e-003**	**0.2663**	**0.0000**	**1,238.8318**	**1,238.8318**	**0.0590**	**0.0000**	**1,240.3066**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3460	3.1986	3.4854	8.6300e-003		0.1401	0.1401		0.1312	0.1312	0.0000	750.2604	750.2604	0.2117	0.0000	755.5533
Total	**0.3460**	**3.1986**	**3.4854**	**8.6300e-003**		**0.1401**	**0.1401**		**0.1312**	**0.1312**	**0.0000**	**750.2604**	**750.2604**	**0.2117**	**0.0000**	**755.5533**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.8247	0.6448	6.3000e-003	0.1699	2.2300e-003	0.1721	0.0490	2.1300e-003	0.0511	0.0000	625.3928	625.3928	0.0473	0.0000	626.5759
Worker	0.2374	0.1463	1.8017	6.7800e-003	0.7929	5.0400e-003	0.7980	0.2106	4.6400e-003	0.2152	0.0000	613.4390	613.4390	0.0117	0.0000	613.7307
Total	**0.2901**	**1.9710**	**2.4465**	**0.0131**	**0.9628**	**7.2700e-003**	**0.9701**	**0.2596**	**6.7700e-003**	**0.2663**	**0.0000**	**1,238.8318**	**1,238.8318**	**0.0590**	**0.0000**	**1,240.3066**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3302	3.0060	3.4983	8.7000e-003		0.1258	0.1258		0.1177	0.1177	0.0000	755.9778	755.9778	0.2129	0.0000	761.2990
Total	**0.3302**	**3.0060**	**3.4983**	**8.7000e-003**		**0.1258**	**0.1258**		**0.1177**	**0.1177**	**0.0000**	**755.9778**	**755.9778**	**0.2129**	**0.0000**	**761.2990**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	1.8132	0.6352	6.2800e-003	0.1710	2.1900e-003	0.1732	0.0493	2.1000e-003	0.0514	0.0000	624.4341	624.4341	0.0469	0.0000	625.6059
Worker	0.2274	0.1341	1.6866	6.5500e-003	0.7980	4.9800e-003	0.8030	0.2119	4.5800e-003	0.2165	0.0000	592.9114	592.9114	0.0107	0.0000	593.1778
Total	**0.2786**	**1.9473**	**2.3217**	**0.0128**	**0.9690**	**7.1700e-003**	**0.9762**	**0.2612**	**6.6800e-003**	**0.2679**	**0.0000**	**1,217.3454**	**1,217.3454**	**0.0575**	**0.0000**	**1,218.7836**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3302	3.0060	3.4983	8.7000e-003		0.1258	0.1258		0.1177	0.1177	0.0000	755.9769	755.9769	0.2129	0.0000	761.2981
Total	**0.3302**	**3.0060**	**3.4983**	**8.7000e-003**		**0.1258**	**0.1258**		**0.1177**	**0.1177**	**0.0000**	**755.9769**	**755.9769**	**0.2129**	**0.0000**	**761.2981**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	1.8132	0.6352	6.2800e-003	0.1710	2.1900e-003	0.1732	0.0493	2.1000e-003	0.0514	0.0000	624.4341	624.4341	0.0469	0.0000	625.6059
Worker	0.2274	0.1341	1.6866	6.5500e-003	0.7980	4.9800e-003	0.8030	0.2119	4.5800e-003	0.2165	0.0000	592.9114	592.9114	0.0107	0.0000	593.1778
Total	**0.2786**	**1.9473**	**2.3217**	**0.0128**	**0.9690**	**7.1700e-003**	**0.9762**	**0.2612**	**6.6800e-003**	**0.2679**	**0.0000**	**1,217.3454**	**1,217.3454**	**0.0575**	**0.0000**	**1,218.7836**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1187	1.0749	1.3205	3.3000e-003		0.0423	0.0423		0.0396	0.0396	0.0000	286.5247	286.5247	0.0805	0.0000	288.5366
Total	**0.1187**	**1.0749**	**1.3205**	**3.3000e-003**		**0.0423**	**0.0423**		**0.0396**	**0.0396**	**0.0000**	**286.5247**	**286.5247**	**0.0805**	**0.0000**	**288.5366**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0189	0.6781	0.2378	2.3600e-003	0.0648	8.1000e-004	0.0656	0.0187	7.8000e-004	0.0195	0.0000	235.1986	235.1986	0.0175	0.0000	235.6366
Worker	0.0824	0.0466	0.5964	2.3800e-003	0.3024	1.8600e-003	0.3043	0.0803	1.7200e-003	0.0820	0.0000	215.6240	215.6240	3.6900e-003	0.0000	215.7163
Total	**0.1014**	**0.7248**	**0.8341**	**4.7400e-003**	**0.3672**	**2.6700e-003**	**0.3699**	**0.0990**	**2.5000e-003**	**0.1015**	**0.0000**	**450.8226**	**450.8226**	**0.0212**	**0.0000**	**451.3529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1187	1.0749	1.3205	3.3000e-003		0.0423	0.0423		0.0396	0.0396	0.0000	286.5243	286.5243	0.0805	0.0000	288.5362
Total	**0.1187**	**1.0749**	**1.3205**	**3.3000e-003**		**0.0423**	**0.0423**		**0.0396**	**0.0396**	**0.0000**	**286.5243**	**286.5243**	**0.0805**	**0.0000**	**288.5362**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0189	0.6781	0.2378	2.3600e-003	0.0648	8.1000e-004	0.0656	0.0187	7.8000e-004	0.0195	0.0000	235.1986	235.1986	0.0175	0.0000	235.6366
Worker	0.0824	0.0466	0.5964	2.3800e-003	0.3024	1.8600e-003	0.3043	0.0803	1.7200e-003	0.0820	0.0000	215.6240	215.6240	3.6900e-003	0.0000	215.7163
Total	**0.1014**	**0.7248**	**0.8341**	**4.7400e-003**	**0.3672**	**2.6700e-003**	**0.3699**	**0.0990**	**2.5000e-003**	**0.1015**	**0.0000**	**450.8226**	**450.8226**	**0.0212**	**0.0000**	**451.3529**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.5480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1352	0.2135	3.5000e-004		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	30.1284	30.1284	1.6400e-003	0.0000	30.1695
Total	**2.5682**	**0.1352**	**0.2135**	**3.5000e-004**		**6.0800e-003**	**6.0800e-003**		**6.0800e-003**	**6.0800e-003**	**0.0000**	**30.1284**	**30.1284**	**1.6400e-003**	**0.0000**	**30.1695**

3.5 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0328	0.0186	0.2376	9.5000e-004	0.1205	7.4000e-004	0.1212	0.0320	6.8000e-004	0.0327	0.0000	85.8943	85.8943	1.4700e-003	0.0000	85.9310
Total	**0.0328**	**0.0186**	**0.2376**	**9.5000e-004**	**0.1205**	**7.4000e-004**	**0.1212**	**0.0320**	**6.8000e-004**	**0.0327**	**0.0000**	**85.8943**	**85.8943**	**1.4700e-003**	**0.0000**	**85.9310**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.5480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1352	0.2135	3.5000e-004		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	30.1284	30.1284	1.6400e-003	0.0000	30.1694
Total	**2.5682**	**0.1352**	**0.2135**	**3.5000e-004**		**6.0800e-003**	**6.0800e-003**		**6.0800e-003**	**6.0800e-003**	**0.0000**	**30.1284**	**30.1284**	**1.6400e-003**	**0.0000**	**30.1694**

3.5 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0328	0.0186	0.2376	9.5000e-004	0.1205	7.4000e-004	0.1212	0.0320	6.8000e-004	0.0327	0.0000	85.8943	85.8943	1.4700e-003	0.0000	85.9310
Total	**0.0328**	**0.0186**	**0.2376**	**9.5000e-004**	**0.1205**	**7.4000e-004**	**0.1212**	**0.0320**	**6.8000e-004**	**0.0327**	**0.0000**	**85.8943**	**85.8943**	**1.4700e-003**	**0.0000**	**85.9310**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0444	0.4162	0.7070	1.1100e-003		0.0203	0.0203		0.0187	0.0187	0.0000	97.0934	97.0934	0.0314	0.0000	97.8784
Paving	9.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0542**	**0.4162**	**0.7070**	**1.1100e-003**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**97.0934**	**97.0934**	**0.0314**	**0.0000**	**97.8784**

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.2300e-003	0.0158	6.0000e-005	7.9900e-003	5.0000e-005	8.0400e-003	2.1200e-003	5.0000e-005	2.1700e-003	0.0000	5.6942	5.6942	1.0000e-004	0.0000	5.6966
Total	**2.1800e-003**	**1.2300e-003**	**0.0158**	**6.0000e-005**	**7.9900e-003**	**5.0000e-005**	**8.0400e-003**	**2.1200e-003**	**5.0000e-005**	**2.1700e-003**	**0.0000**	**5.6942**	**5.6942**	**1.0000e-004**	**0.0000**	**5.6966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0444	0.4162	0.7070	1.1100e-003		0.0203	0.0203		0.0187	0.0187	0.0000	97.0933	97.0933	0.0314	0.0000	97.8783
Paving	9.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0542**	**0.4162**	**0.7070**	**1.1100e-003**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**97.0933**	**97.0933**	**0.0314**	**0.0000**	**97.8783**

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.2300e-003	0.0158	6.0000e-005	7.9900e-003	5.0000e-005	8.0400e-003	2.1200e-003	5.0000e-005	2.1700e-003	0.0000	5.6942	5.6942	1.0000e-004	0.0000	5.6966
Total	**2.1800e-003**	**1.2300e-003**	**0.0158**	**6.0000e-005**	**7.9900e-003**	**5.0000e-005**	**8.0400e-003**	**2.1200e-003**	**5.0000e-005**	**2.1700e-003**	**0.0000**	**5.6942**	**5.6942**	**1.0000e-004**	**0.0000**	**5.6966**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0619	4.1723	13.5034	0.0571	5.9987	0.0412	6.0399	1.6064	0.0381	1.6445	0.0000	5,284.5138	5,284.5138	0.2066	0.0000	5,289.6791
Unmitigated	1.0619	4.1723	13.5034	0.0571	5.9987	0.0412	6.0399	1.6064	0.0381	1.6445	0.0000	5,284.5138	5,284.5138	0.2066	0.0000	5,289.6791

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	87.00	68.25	87.00	242,638	242,638
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,728.60	1,732.90	1728.60	4,126,201	4,126,201
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,561.04	1,826.85	1561.04	4,057,147	4,057,147
Single Family Housing	2,150.00	2,237.50	2150.00	7,389,591	7,389,591
Total	5,526.64	5,865.50	5,526.64	15,815,577	15,815,577

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	65	35	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Enclosed Parking Structure	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Hotel	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Parking Lot	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Regional Shopping Center	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836
Single Family Housing	0.567806	0.042648	0.209377	0.105989	0.013805	0.005766	0.026460	0.018426	0.001825	0.001473	0.004977	0.000611	0.000836

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Magnolia Tank Farm EIR- Full Buildout, Project - Orange County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,290.9126	1,290.9126	0.0708	0.0146	1,297.0450
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,290.9126	1,290.9126	0.0708	0.0146	1,297.0450
NaturalGas Mitigated	0.0740	0.6534	0.4256	4.0300e-003		0.0511	0.0511		0.0511	0.0511	0.0000	731.9368	731.9368	0.0140	0.0134	736.2863
NaturalGas Unmitigated	0.0740	0.6534	0.4256	4.0300e-003		0.0511	0.0511		0.0511	0.0511	0.0000	731.9368	731.9368	0.0140	0.0134	736.2863

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	7.22675e+006	0.0390	0.3543	0.2976	2.1300e-003		0.0269	0.0269		0.0269	0.0269	0.0000	385.6469	385.6469	7.3900e-003	7.0700e-003	387.9386
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	38000	2.0000e-004	1.8600e-003	1.5600e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0278	2.0278	4.0000e-005	4.0000e-005	2.0399
Single Family Housing	6.45123e+006	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	344.2621	344.2621	6.6000e-003	6.3100e-003	346.3078
Total		**0.0740**	**0.6534**	**0.4256**	**4.0400e-003**		**0.0511**	**0.0511**		**0.0511**	**0.0511**	**0.0000**	**731.9368**	**731.9368**	**0.0140**	**0.0134**	**736.2863**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	7.22675e+006	0.0390	0.3543	0.2976	2.1300e-003		0.0269	0.0269		0.0269	0.0269	0.0000	385.6469	385.6469	7.3900e-003	7.0700e-003	387.9386
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	38000	2.0000e-004	1.8600e-003	1.5600e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0278	2.0278	4.0000e-005	4.0000e-005	2.0399
Single Family Housing	6.45123e+006	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	344.2621	344.2621	6.6000e-003	6.3100e-003	346.3078
Total		**0.0740**	**0.6534**	**0.4256**	**4.0400e-003**		**0.0511**	**0.0511**		**0.0511**	**0.0511**	**0.0000**	**731.9368**	**731.9368**	**0.0140**	**0.0134**	**736.2863**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.134e +006	272.1037	0.0149	3.0900e-003	273.3963
Hotel	1.90744e +006	457.6909	0.0251	5.1900e-003	459.8652
Parking Lot	116480	27.9494	1.5300e-003	3.2000e-004	28.0822
Regional Shopping Center	217360	52.1556	2.8600e-003	5.9000e-004	52.4034
Single Family Housing	2.00464e +006	481.0129	0.0264	5.4600e-003	483.2979
Total		**1,290.9126**	**0.0708**	**0.0147**	**1,297.0450**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.134e +006	272.1037	0.0149	3.0900e-003	273.3963
Hotel	1.90744e +006	457.6909	0.0251	5.1900e-003	459.8652
Parking Lot	116480	27.9494	1.5300e-003	3.2000e-004	28.0822
Regional Shopping Center	217360	52.1556	2.8600e-003	5.9000e-004	52.4034
Single Family Housing	2.00464e +006	481.0129	0.0264	5.4600e-003	483.2979
Total		**1,290.9126**	**0.0708**	**0.0147**	**1,297.0450**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8320	0.0739	2.6144	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2795	55.2795	5.1100e-003	9.4000e-004	55.6861
Unmitigated	2.8320	0.0739	2.6144	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2795	55.2795	5.1100e-003	9.4000e-004	55.6861

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2548					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1600e-003	0.0441	0.0188	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003	0.0000	51.0291	51.0291	9.8000e-004	9.4000e-004	51.3324
Landscaping	0.0792	0.0299	2.5957	1.4000e-004		0.0144	0.0144		0.0144	0.0144	0.0000	4.2503	4.2503	4.1300e-003	0.0000	4.3537
Total	**2.8320**	**0.0739**	**2.6144**	**4.2000e-004**		**0.0179**	**0.0179**		**0.0179**	**0.0179**	**0.0000**	**55.2795**	**55.2795**	**5.1100e-003**	**9.4000e-004**	**55.6861**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2548					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1600e-003	0.0441	0.0188	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003	0.0000	51.0291	51.0291	9.8000e-004	9.4000e-004	51.3324
Landscaping	0.0792	0.0299	2.5957	1.4000e-004		0.0144	0.0144		0.0144	0.0144	0.0000	4.2503	4.2503	4.1300e-003	0.0000	4.3537
Total	**2.8320**	**0.0739**	**2.6144**	**4.2000e-004**		**0.0179**	**0.0179**		**0.0179**	**0.0179**	**0.0000**	**55.2795**	**55.2795**	**5.1100e-003**	**9.4000e-004**	**55.6861**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	195.9680	1.2369	0.0311	236.1459
Unmitigated	195.9680	1.2369	0.0311	236.1459

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.81345	15.4978	8.5000e-004	1.8000e-004	15.5714
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	8.87012 / 0.985569	33.1552	0.2907	7.1700e-003	42.5589
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.28895 / 1.40291	11.6177	0.0752	1.8800e-003	14.0589
Single Family Housing	26.4915 / 16.7012	135.6973	0.8702	0.0218	163.9567
Total		**195.9680**	**1.2369**	**0.0311**	**236.1459**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.81345	15.4978	8.5000e-004	1.8000e-004	15.5714
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	8.87012 / 0.985569	33.1552	0.2907	7.1700e-003	42.5589
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.28895 / 1.40291	11.6177	0.0752	1.8800e-003	14.0589
Single Family Housing	26.4915 / 16.7012	135.6973	0.8702	0.0218	163.9567
Total		**195.9680**	**1.2369**	**0.0311**	**236.1459**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	87.5033	5.1713	0.0000	216.7858
Unmitigated	87.5033	5.1713	0.0000	216.7858

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.26	0.0528	3.1200e-003	0.0000	0.1308
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	117.71	23.8941	1.4121	0.0000	59.1965
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	19.95	4.0497	0.2393	0.0000	10.0329
Single Family Housing	293.15	59.5068	3.5168	0.0000	147.4256
Total		**87.5033**	**5.1713**	**0.0000**	**216.7858**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.26	0.0528	3.1200e-003	0.0000	0.1308
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	117.71	23.8941	1.4121	0.0000	59.1965
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	19.95	4.0497	0.2393	0.0000	10.0329
Single Family Housing	293.15	59.5068	3.5168	0.0000	147.4256
Total		**87.5033**	**5.1713**	**0.0000**	**216.7858**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.01	36	903	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Total	**0.0267**	**0.1193**	**0.0680**	**1.3000e-004**		**3.9200e-003**	**3.9200e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**12.3790**	**12.3790**	**1.7400e-003**	**0.0000**	**12.4223**

11.0 Vegetation

EXHIBIT C

TITLE: Magnolia Tank Farm Alt 1 Construction

********** AREA PARAMETERS **********

SOURCE EMISSION RATE:	0.164E-02	g/s	0.130E-01	lb/hr
AREA EMISSION RATE:	0.140E-07	g/(s-m2)	0.111E-06	lb/(hr-m2)
AREA HEIGHT:	3.00	meters	9.84	feet
AREA SOURCE LONG SIDE:	351.50	meters	1153.22	feet
AREA SOURCE SHORT SIDE:	333.00	meters	1092.52	feet
INITIAL VERTICAL DIMENSION:	1.50	meters	4.92	feet
RURAL OR URBAN:	URBAN			
POPULATION:	201874			
INITIAL PROBE DISTANCE =	5000.	meters	16404.	feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********

25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.6634	40	225.0	WIN

* = worst case diagonal

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE: Average Moisture
DOMINANT SEASON: Winter

ALBEDO: 0.35
BOWEN RATIO: 1.50
ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	10	10	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50

HT	REF TA	HT
10.0	310.0	2.0

********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.4971	2525.00	0.3088E-01

25.00	0.5193	2550.00	0.3049E-01
50.00	0.5411	2575.00	0.3011E-01
75.00	0.5616	2600.00	0.2973E-01
100.00	0.5810	2625.00	0.2937E-01
125.00	0.5994	2650.00	0.2901E-01
150.00	0.6169	2675.00	0.2865E-01
175.00	0.6335	2700.00	0.2831E-01
200.00	0.6490	2725.00	0.2797E-01
225.00	0.6634	2750.00	0.2764E-01
250.00	0.5629	2775.00	0.2732E-01
275.00	0.4672	2800.00	0.2700E-01
300.00	0.4130	2825.00	0.2669E-01
325.00	0.3655	2850.00	0.2639E-01
350.00	0.3290	2875.00	0.2609E-01
375.01	0.2999	2900.00	0.2579E-01
400.00	0.2761	2925.00	0.2551E-01
425.00	0.2562	2950.00	0.2522E-01
450.00	0.2393	2975.00	0.2494E-01
475.00	0.2246	3000.00	0.2467E-01
500.00	0.2118	3025.00	0.2441E-01
525.00	0.2004	3050.00	0.2415E-01
549.99	0.1901	3074.99	0.2389E-01
575.00	0.1809	3100.00	0.2364E-01
600.00	0.1725	3125.00	0.2339E-01
625.00	0.1648	3150.00	0.2315E-01
650.00	0.1578	3175.00	0.2291E-01
675.00	0.1513	3200.00	0.2268E-01
700.00	0.1452	3225.00	0.2245E-01
725.00	0.1397	3250.00	0.2222E-01
750.00	0.1344	3275.00	0.2200E-01
775.00	0.1296	3300.00	0.2178E-01
800.00	0.1250	3325.00	0.2156E-01
825.00	0.1207	3350.00	0.2135E-01
850.00	0.1167	3375.00	0.2115E-01
875.00	0.1129	3400.00	0.2094E-01
900.00	0.1093	3425.00	0.2074E-01
925.00	0.1059	3450.00	0.2054E-01
950.00	0.1027	3475.00	0.2034E-01
975.00	0.9966E-01	3500.00	0.2015E-01
1000.00	0.9679E-01	3525.00	0.1996E-01
1025.00	0.9406E-01	3550.00	0.1978E-01
1050.00	0.9145E-01	3575.00	0.1960E-01
1075.00	0.8895E-01	3600.00	0.1942E-01
1100.00	0.8656E-01	3625.00	0.1924E-01
1125.00	0.8430E-01	3650.00	0.1907E-01
1149.99	0.8214E-01	3675.00	0.1890E-01
1175.00	0.8007E-01	3700.00	0.1873E-01
1200.00	0.7808E-01	3725.00	0.1856E-01
1225.00	0.7618E-01	3750.00	0.1840E-01
1250.00	0.7436E-01	3775.00	0.1824E-01

1275.00	0.7262E-01	3800.00	0.1808E-01
1300.00	0.7094E-01	3825.00	0.1792E-01
1325.00	0.6934E-01	3850.00	0.1777E-01
1350.00	0.6778E-01	3875.00	0.1762E-01
1375.00	0.6628E-01	3900.00	0.1747E-01
1400.00	0.6483E-01	3925.00	0.1732E-01
1425.00	0.6345E-01	3950.00	0.1717E-01
1450.00	0.6213E-01	3975.00	0.1703E-01
1475.00	0.6085E-01	4000.00	0.1689E-01
1500.00	0.5961E-01	4025.00	0.1675E-01
1525.00	0.5841E-01	4050.00	0.1661E-01
1550.00	0.5724E-01	4075.00	0.1648E-01
1574.99	0.5612E-01	4100.00	0.1634E-01
1600.00	0.5503E-01	4125.00	0.1621E-01
1625.00	0.5399E-01	4150.00	0.1608E-01
1650.00	0.5298E-01	4175.00	0.1595E-01
1675.00	0.5200E-01	4200.00	0.1583E-01
1700.00	0.5105E-01	4225.00	0.1570E-01
1725.00	0.5013E-01	4250.00	0.1558E-01
1750.00	0.4924E-01	4275.00	0.1546E-01
1775.00	0.4837E-01	4300.00	0.1534E-01
1800.00	0.4753E-01	4325.00	0.1523E-01
1825.00	0.4672E-01	4350.00	0.1511E-01
1850.00	0.4592E-01	4375.00	0.1500E-01
1875.00	0.4515E-01	4400.00	0.1489E-01
1900.00	0.4440E-01	4425.00	0.1477E-01
1924.99	0.4368E-01	4450.00	0.1466E-01
1950.00	0.4297E-01	4475.00	0.1455E-01
1975.01	0.4229E-01	4500.00	0.1445E-01
2000.00	0.4162E-01	4525.00	0.1434E-01
2025.00	0.4097E-01	4550.00	0.1424E-01
2050.00	0.4033E-01	4575.00	0.1413E-01
2075.00	0.3971E-01	4600.00	0.1403E-01
2100.00	0.3911E-01	4625.00	0.1393E-01
2125.00	0.3853E-01	4650.00	0.1383E-01
2150.00	0.3796E-01	4675.00	0.1373E-01
2175.00	0.3740E-01	4700.00	0.1363E-01
2200.00	0.3686E-01	4725.00	0.1353E-01
2225.00	0.3634E-01	4750.00	0.1344E-01
2250.00	0.3582E-01	4775.00	0.1334E-01
2275.00	0.3531E-01	4800.00	0.1325E-01
2300.00	0.3482E-01	4825.00	0.1316E-01
2325.00	0.3434E-01	4850.00	0.1307E-01
2350.00	0.3387E-01	4875.00	0.1298E-01
2375.00	0.3341E-01	4900.00	0.1289E-01
2400.00	0.3297E-01	4925.00	0.1280E-01
2425.00	0.3254E-01	4950.00	0.1271E-01
2450.00	0.3211E-01	4975.00	0.1263E-01
2475.00	0.3169E-01	5000.00	0.1254E-01
2500.00	0.3128E-01		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.6646	0.6646	0.6646	0.6646	N/A
DISTANCE FROM SOURCE	227.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	0.4971	0.4971	0.4971	0.4971	N/A
DISTANCE FROM SOURCE	1.00 meters				

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 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
  H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.49713E+00         1.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.51934E+00        25.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.54110E+00        50.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.56161E+00        75.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.58102E+00       100.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.59940E+00       125.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.61689E+00       150.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.63353E+00       175.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.64900E+00       200.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.66338E+00       225.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
*  0.66460E+00       227.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.56291E+00       250.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46719E+00       275.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.41300E+00       300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36548E+00       325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32895E+00       350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.29989E+00       375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27612E+00       400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25622E+00       425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23926E+00       450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22460E+00       475.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21176E+00       500.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20038E+00       525.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19013E+00       549.99      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18089E+00       575.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17253E+00       600.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16484E+00       625.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15777E+00       650.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15129E+00       675.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14524E+00       700.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13965E+00       725.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13443E+00       750.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12956E+00       775.00      0.00  40.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12503E+00       800.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12072E+00       825.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11667E+00       850.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11289E+00       875.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10931E+00       900.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10592E+00       925.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10272E+00       950.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.99665E-01       975.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.96785E-01      1000.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.94063E-01      1025.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.91449E-01      1050.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.88945E-01      1075.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.86564E-01      1100.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.84299E-01      1125.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.82136E-01      1149.99      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.80070E-01      1175.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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   0.78081E-01      1200.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.76176E-01      1225.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.74355E-01      1250.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.72615E-01      1275.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.70941E-01      1300.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.69339E-01      1325.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.67780E-01      1350.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.66277E-01      1375.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.64827E-01      1400.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.63449E-01      1425.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.62127E-01      1450.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.60847E-01      1475.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.59610E-01      1500.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.58412E-01      1525.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.57244E-01      1550.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.56116E-01      1574.99      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.55031E-01      1600.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.53992E-01      1625.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.52979E-01      1650.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.51999E-01      1675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.51052E-01      1700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.50133E-01      1725.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.49237E-01      1750.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.48369E-01      1775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.47527E-01      1800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46715E-01      1825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.45920E-01      1850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.45149E-01      1875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44401E-01      1900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.43676E-01      1924.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42973E-01      1950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42286E-01      1975.01      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.41618E-01      2000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.40967E-01      2025.00      0.00  15.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.40330E-01      2050.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.39713E-01      2075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.39114E-01      2100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38533E-01      2125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37958E-01      2150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37402E-01      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36862E-01      2200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36335E-01      2225.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35818E-01      2250.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35312E-01      2275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34819E-01      2300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34338E-01      2325.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33870E-01      2350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33414E-01      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32970E-01      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32535E-01      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

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   0.32106E-01      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31688E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31279E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30879E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30489E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30108E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29735E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29370E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29007E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28653E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28306E-01      2700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27970E-01      2725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27641E-01      2750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27319E-01      2775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27003E-01      2800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26693E-01      2825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26388E-01      2850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.26089E-01      2875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25795E-01      2900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25507E-01      2925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25223E-01      2950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24944E-01      2975.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24673E-01      3000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24409E-01      3025.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24147E-01      3050.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23889E-01      3074.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23636E-01      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23391E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23149E-01      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22912E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22677E-01      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22446E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22220E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21997E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21779E-01      3300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21564E-01      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21353E-01      3350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21146E-01      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20939E-01      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20737E-01      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20537E-01      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20341E-01      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20149E-01      3500.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19961E-01      3525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19777E-01      3550.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19596E-01      3575.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19418E-01      3600.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19243E-01      3625.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19069E-01      3650.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18897E-01      3675.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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   0.18729E-01      3700.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18563E-01      3725.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18400E-01      3750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18239E-01      3775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18079E-01      3800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17923E-01      3825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17768E-01      3850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17616E-01      3875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17465E-01      3900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17317E-01      3925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17171E-01      3950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17027E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16886E-01      4000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16748E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16610E-01      4050.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16475E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16342E-01      4100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.16211E-01      4125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16081E-01      4150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15953E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15828E-01      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15704E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15583E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15463E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15344E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15227E-01      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15112E-01      4350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14998E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14886E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14774E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14663E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14554E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14447E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14340E-01      4525.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14236E-01      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14132E-01      4575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14030E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13928E-01      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13827E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13728E-01      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13630E-01      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13533E-01      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13437E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13342E-01      4775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13249E-01      4800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13157E-01      4825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13066E-01      4850.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12976E-01      4875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12888E-01      4900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12800E-01      4925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

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   0.12713E-01      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12628E-01      4975.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12544E-01      5000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

TITLE: Magnolia Tank Farm Alt 1 Operation

********** AREA PARAMETERS **********

SOURCE EMISSION RATE:	0.194E-02	g/s	0.154E-01	lb/hr
AREA EMISSION RATE:	0.166E-07	g/(s-m2)	0.132E-06	lb/(hr-m2)
AREA HEIGHT:	3.00	meters	9.84	feet
AREA SOURCE LONG SIDE:	351.50	meters	1153.22	feet
AREA SOURCE SHORT SIDE:	333.00	meters	1092.52	feet
INITIAL VERTICAL DIMENSION:	1.50	meters	4.92	feet
RURAL OR URBAN:	URBAN			
POPULATION:	201874			
INITIAL PROBE DISTANCE =	5000.	meters	16404.	feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********

25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.7833	40	225.0	WIN

* = worst case diagonal

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE: Average Moisture
DOMINANT SEASON: Winter

ALBEDO: 0.35
BOWEN RATIO: 1.50
ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	10	10	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50

HT	REF TA	HT
10.0	310.0	2.0

********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.5870	2525.00	0.3646E-01

25.00	0.6132	2550.00	0.3600E-01
50.00	0.6389	2575.00	0.3555E-01
75.00	0.6631	2600.00	0.3511E-01
100.00	0.6861	2625.00	0.3468E-01
125.00	0.7078	2650.00	0.3425E-01
150.00	0.7284	2675.00	0.3383E-01
175.00	0.7481	2700.00	0.3342E-01
200.00	0.7663	2725.00	0.3303E-01
225.00	0.7833	2750.00	0.3264E-01
250.00	0.6647	2775.00	0.3226E-01
275.00	0.5516	2800.00	0.3188E-01
300.00	0.4877	2825.00	0.3152E-01
325.00	0.4315	2850.00	0.3116E-01
350.00	0.3884	2875.00	0.3080E-01
375.01	0.3541	2900.00	0.3046E-01
400.00	0.3260	2925.00	0.3012E-01
425.00	0.3025	2950.00	0.2978E-01
450.00	0.2825	2975.00	0.2945E-01
475.00	0.2652	3000.00	0.2913E-01
500.00	0.2500	3025.00	0.2882E-01
525.00	0.2366	3050.00	0.2851E-01
549.99	0.2245	3074.99	0.2821E-01
575.00	0.2136	3100.00	0.2791E-01
600.00	0.2037	3125.00	0.2762E-01
625.00	0.1946	3150.00	0.2733E-01
650.00	0.1863	3175.00	0.2705E-01
675.00	0.1786	3200.00	0.2678E-01
700.00	0.1715	3225.00	0.2650E-01
725.00	0.1649	3250.00	0.2624E-01
750.00	0.1587	3275.00	0.2597E-01
775.00	0.1530	3300.00	0.2572E-01
800.00	0.1476	3325.00	0.2546E-01
825.00	0.1425	3350.00	0.2521E-01
850.00	0.1378	3375.00	0.2497E-01
875.00	0.1333	3400.00	0.2472E-01
900.00	0.1291	3425.00	0.2449E-01
925.00	0.1251	3450.00	0.2425E-01
950.00	0.1213	3475.00	0.2402E-01
975.00	0.1177	3500.00	0.2379E-01
1000.00	0.1143	3525.00	0.2357E-01
1025.00	0.1111	3550.00	0.2335E-01
1050.00	0.1080	3575.00	0.2314E-01
1075.00	0.1050	3600.00	0.2293E-01
1100.00	0.1022	3625.00	0.2272E-01
1125.00	0.9954E-01	3650.00	0.2252E-01
1149.99	0.9699E-01	3675.00	0.2231E-01
1175.00	0.9455E-01	3700.00	0.2211E-01
1200.00	0.9220E-01	3725.00	0.2192E-01
1225.00	0.8995E-01	3750.00	0.2173E-01
1250.00	0.8780E-01	3775.00	0.2154E-01

1275.00	0.8574E-01	3800.00	0.2135E-01
1300.00	0.8377E-01	3825.00	0.2116E-01
1325.00	0.8187E-01	3850.00	0.2098E-01
1350.00	0.8003E-01	3875.00	0.2080E-01
1375.00	0.7826E-01	3900.00	0.2062E-01
1400.00	0.7655E-01	3925.00	0.2045E-01
1425.00	0.7492E-01	3950.00	0.2027E-01
1450.00	0.7336E-01	3975.00	0.2011E-01
1475.00	0.7185E-01	4000.00	0.1994E-01
1500.00	0.7039E-01	4025.00	0.1978E-01
1525.00	0.6897E-01	4050.00	0.1961E-01
1550.00	0.6759E-01	4075.00	0.1945E-01
1574.99	0.6626E-01	4100.00	0.1930E-01
1600.00	0.6498E-01	4125.00	0.1914E-01
1625.00	0.6375E-01	4150.00	0.1899E-01
1650.00	0.6256E-01	4175.00	0.1884E-01
1675.00	0.6140E-01	4200.00	0.1869E-01
1700.00	0.6028E-01	4225.00	0.1854E-01
1725.00	0.5920E-01	4250.00	0.1840E-01
1750.00	0.5814E-01	4275.00	0.1826E-01
1775.00	0.5711E-01	4300.00	0.1812E-01
1800.00	0.5612E-01	4325.00	0.1798E-01
1825.00	0.5516E-01	4350.00	0.1784E-01
1850.00	0.5422E-01	4375.00	0.1771E-01
1875.00	0.5331E-01	4400.00	0.1758E-01
1900.00	0.5243E-01	4425.00	0.1744E-01
1924.99	0.5157E-01	4450.00	0.1731E-01
1950.00	0.5074E-01	4475.00	0.1719E-01
1975.01	0.4993E-01	4500.00	0.1706E-01
2000.00	0.4914E-01	4525.00	0.1693E-01
2025.00	0.4837E-01	4550.00	0.1681E-01
2050.00	0.4762E-01	4575.00	0.1669E-01
2075.00	0.4689E-01	4600.00	0.1657E-01
2100.00	0.4618E-01	4625.00	0.1645E-01
2125.00	0.4550E-01	4650.00	0.1633E-01
2150.00	0.4482E-01	4675.00	0.1621E-01
2175.00	0.4416E-01	4700.00	0.1609E-01
2200.00	0.4353E-01	4725.00	0.1598E-01
2225.00	0.4290E-01	4750.00	0.1587E-01
2250.00	0.4229E-01	4775.00	0.1575E-01
2275.00	0.4170E-01	4800.00	0.1564E-01
2300.00	0.4111E-01	4825.00	0.1554E-01
2325.00	0.4055E-01	4850.00	0.1543E-01
2350.00	0.3999E-01	4875.00	0.1532E-01
2375.00	0.3945E-01	4900.00	0.1522E-01
2400.00	0.3893E-01	4925.00	0.1511E-01
2425.00	0.3842E-01	4950.00	0.1501E-01
2450.00	0.3791E-01	4975.00	0.1491E-01
2475.00	0.3742E-01	5000.00	0.1481E-01
2500.00	0.3693E-01		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.7848	0.7848	0.7848	0.7848	N/A
DISTANCE FROM SOURCE	227.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	0.5870	0.5870	0.5870	0.5870	N/A
DISTANCE FROM SOURCE	1.00 meters				

Concentration		Distance	Elevation	Diag	Season/Month	Zo	sector	Date						
H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	HT	REF TA	HT	
0.58700E+00		1.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.61323E+00		25.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.63893E+00		50.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.66314E+00		75.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.68605E+00		100.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.70776E+00		125.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.72841E+00		150.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.74806E+00		175.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.76633E+00		200.00	0.00	35.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.78331E+00		225.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
* 0.78475E+00		227.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.66467E+00		250.00	0.00	45.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.55165E+00		275.00	0.00	40.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.48766E+00		300.00	0.00	45.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.43155E+00		325.00	0.00	45.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0	
0.38842E+00		350.00	0.00	45.0	Winter	0-360	10011001							
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0			

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 310.0    2.0
   0.35411E+00       375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32604E+00       400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30254E+00       425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28251E+00       450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26521E+00       475.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25005E+00       500.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23660E+00       525.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22450E+00       549.99      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21359E+00       575.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20372E+00       600.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19464E+00       625.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18630E+00       650.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17864E+00       675.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17150E+00       700.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16490E+00       725.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15874E+00       750.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15298E+00       775.00      0.00  40.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14763E+00       800.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14254E+00       825.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13777E+00       850.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13330E+00       875.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12907E+00       900.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12507E+00       925.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12129E+00       950.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11768E+00       975.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11428E+00      1000.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11107E+00      1025.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10798E+00      1050.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10503E+00      1075.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10221E+00      1100.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.99538E-01      1125.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.96985E-01      1149.99      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.94545E-01      1175.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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   0.92197E-01      1200.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.89947E-01      1225.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.87797E-01      1250.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.85743E-01      1275.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.83766E-01      1300.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.81874E-01      1325.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.80034E-01      1350.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.78259E-01      1375.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.76547E-01      1400.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.74919E-01      1425.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.73358E-01      1450.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.71847E-01      1475.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.70386E-01      1500.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.68972E-01      1525.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.67592E-01      1550.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.66261E-01      1574.99      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.64980E-01      1600.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.63753E-01      1625.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.62557E-01      1650.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.61399E-01      1675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.60281E-01      1700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.59196E-01      1725.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.58138E-01      1750.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.57113E-01      1775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.56119E-01      1800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.55161E-01      1825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.54221E-01      1850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.53311E-01      1875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.52428E-01      1900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.51572E-01      1924.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.50742E-01      1950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.49931E-01      1975.01      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.49142E-01      2000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.48373E-01      2025.00      0.00  15.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.47620E-01      2050.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46892E-01      2075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46185E-01      2100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.45499E-01      2125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44820E-01      2150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44163E-01      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.43526E-01      2200.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42904E-01      2225.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42293E-01      2250.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.41696E-01      2275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.41113E-01      2300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.40546E-01      2325.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.39993E-01      2350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.39454E-01      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38930E-01      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38417E-01      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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   0.37911E-01      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37416E-01      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36934E-01      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36462E-01      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36001E-01      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35551E-01      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35110E-01      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34679E-01      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34251E-01      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33833E-01      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33424E-01      2700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33026E-01      2725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32637E-01      2750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32258E-01      2775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31885E-01      2800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31518E-01      2825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31159E-01      2850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.30805E-01      2875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30458E-01      2900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30118E-01      2925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29783E-01      2950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29454E-01      2975.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29134E-01      3000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28821E-01      3025.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28512E-01      3050.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28208E-01      3074.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27909E-01      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27619E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27334E-01      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27054E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26777E-01      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26504E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26237E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25974E-01      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25716E-01      3300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25463E-01      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25213E-01      3350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24968E-01      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24725E-01      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24485E-01      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24250E-01      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24019E-01      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23792E-01      3500.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23570E-01      3525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23352E-01      3550.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23139E-01      3575.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22929E-01      3600.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22721E-01      3625.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22516E-01      3650.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22314E-01      3675.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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   0.22115E-01      3700.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21919E-01      3725.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21726E-01      3750.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21536E-01      3775.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21348E-01      3800.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21163E-01      3825.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20980E-01      3850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20800E-01      3875.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20622E-01      3900.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20447E-01      3925.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20275E-01      3950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20105E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19939E-01      4000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19775E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19613E-01      4050.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19454E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19296E-01      4100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.19141E-01      4125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18988E-01      4150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18838E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18690E-01      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18544E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18400E-01      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18258E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18118E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17980E-01      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17844E-01      4350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17709E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17577E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17444E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17314E-01      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17185E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17058E-01      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16933E-01      4525.00      0.00   0.0        Winter       0-360   10011001
```

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16809E-01      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16687E-01      4575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16566E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16446E-01      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16327E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16210E-01      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16094E-01      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15979E-01      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15866E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15755E-01      4775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15644E-01      4800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15535E-01      4825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15428E-01      4850.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15322E-01      4875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15218E-01      4900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15114E-01      4925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

```
   0.15012E-01      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14911E-01      4975.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14812E-01      5000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

EXHIBIT D

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
City Park	3.00	Acre	3.00	130,680.00	0
Single Family Housing	250.00	Dwelling Unit	20.30	450,000.00	715

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	529	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Annual

Project Characteristics - Matches DEIR's model.

Land Use - Matches DEIR's model, except see SWAPE comment regarding parking.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model.

Off-road Equipment -

Trips and VMT - Matches DEIR's model.

Grading -

Vehicle Trips - Matches DEIR's model.

Energy Use -

Water And Wastewater - Matches DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps -

Woodstoves - Matches DEIR's model.

Construction Off-road Equipment Mitigation - Matches DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	54.00
tblConstructionPhase	NumDays	45.00	121.00
tblConstructionPhase	NumDays	500.00	1,195.00
tblConstructionPhase	NumDays	35.00	236.00
tblConstructionPhase	NumDays	35.00	97.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Annual

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/28/2021	3/4/2021
tblConstructionPhase	PhaseEndDate	4/1/2021	7/23/2021
tblConstructionPhase	PhaseEndDate	3/2/2023	5/19/2025
tblConstructionPhase	PhaseEndDate	6/8/2023	12/31/2025
tblConstructionPhase	PhaseEndDate	4/20/2023	9/9/2025
tblConstructionPhase	PhaseStartDate	1/29/2021	3/5/2021
tblConstructionPhase	PhaseStartDate	4/2/2021	7/26/2021
tblConstructionPhase	PhaseStartDate	4/21/2023	4/1/2025
tblConstructionPhase	PhaseStartDate	3/3/2023	5/20/2025
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	12.50	0.00
tblGrading	MaterialImported	0.00	120,000.00
tblLandUse	LotAcreage	81.17	20.30
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	529
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	903.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,143.00
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	16.74	29.00
tblVehicleTrips	SU_TR	8.62	8.60
tblVehicleTrips	WD_TR	1.89	26.97
tblVehicleTrips	WD_TR	9.52	9.44

tblWater	IndoorWaterUseRate	16,288,506.41	25,567,434.00
tblWater	OutdoorWaterUseRate	3,574,444.05	5,610,666.00
tblWater	OutdoorWaterUseRate	10,268,840.99	16,118,600.00
tblWoodstoves	NumberCatalytic	12.50	0.00
tblWoodstoves	NumberNoncatalytic	12.50	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.8238	10.0596	6.3421	0.0211	1.5942	0.3203	1.9146	0.6224	0.2963	0.9187	0.0000	1,964.2847	1,964.2847	0.3697	0.0000	1,973.5262
2022	0.5878	5.2236	5.2907	0.0177	0.6501	0.1673	0.8174	0.1752	0.1567	0.3319	0.0000	1,610.7130	1,610.7130	0.2552	0.0000	1,617.0927
2023	0.5413	4.4999	5.1284	0.0174	0.6480	0.1449	0.7929	0.1746	0.1357	0.3103	0.0000	1,577.0705	1,577.0705	0.2508	0.0000	1,583.3403
2024	0.5177	4.2915	5.0570	0.0173	0.6521	0.1306	0.7827	0.1758	0.1222	0.2980	0.0000	1,568.2780	1,568.2780	0.2509	0.0000	1,574.5515
2025	1.7512	2.1185	2.9775	8.6300e-003	0.3367	0.0711	0.4078	0.0904	0.0665	0.1569	0.0000	778.3809	778.3809	0.1287	0.0000	781.5972
Maximum	**1.7512**	**10.0596**	**6.3421**	**0.0211**	**1.5942**	**0.3203**	**1.9146**	**0.6224**	**0.2963**	**0.9187**	**0.0000**	**1,964.2847**	**1,964.2847**	**0.3697**	**0.0000**	**1,973.5262**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6891	9.2138	6.6018	0.0211	1.5942	0.2857	1.8800	0.6224	0.2698	0.8922	0.0000	1,964.2836	1,964.2836	0.3697	0.0000	1,973.5251
2022	0.5878	5.2236	5.2907	0.0177	0.6501	0.1673	0.8174	0.1752	0.1567	0.3319	0.0000	1,610.7121	1,610.7121	0.2552	0.0000	1,617.0918
2023	0.5412	4.4999	5.1284	0.0174	0.6480	0.1449	0.7929	0.1746	0.1357	0.3103	0.0000	1,577.0696	1,577.0696	0.2508	0.0000	1,583.3394
2024	0.5177	4.2915	5.0570	0.0173	0.6521	0.1306	0.7827	0.1758	0.1222	0.2980	0.0000	1,568.2771	1,568.2771	0.2509	0.0000	1,574.5506
2025	1.7512	2.1185	2.9775	8.6300e-003	0.3367	0.0711	0.4078	0.0904	0.0665	0.1569	0.0000	778.3804	778.3804	0.1287	0.0000	781.5967
Maximum	**1.7512**	**9.2138**	**6.6018**	**0.0211**	**1.5942**	**0.2857**	**1.8800**	**0.6224**	**0.2698**	**0.8922**	**0.0000**	**1,964.2836**	**1,964.2836**	**0.3697**	**0.0000**	**1,973.5251**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.19**	**3.23**	**-1.05**	**0.00**	**0.00**	**4.15**	**0.73**	**0.00**	**3.41**	**1.32**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	2.4918	2.3043
2	4-1-2021	6-30-2021	4.3305	3.6984
3	7-1-2021	9-30-2021	2.3002	2.1404
4	10-1-2021	12-31-2021	1.6637	1.6637
5	1-1-2022	3-31-2022	1.4300	1.4300
6	4-1-2022	6-30-2022	1.4385	1.4385

7	**7-1-2022**	**9-30-2022**	1.4543	1.4543
8	**10-1-2022**	**12-31-2022**	1.4617	1.4617
9	**1-1-2023**	**3-31-2023**	1.2463	1.2463
10	**4-1-2023**	**6-30-2023**	1.2538	1.2538
11	**7-1-2023**	**9-30-2023**	1.2676	1.2676
12	**10-1-2023**	**12-31-2023**	1.2740	1.2740
13	**1-1-2024**	**3-31-2024**	1.1946	1.1946
14	**4-1-2024**	**6-30-2024**	1.1885	1.1885
15	**7-1-2024**	**9-30-2024**	1.2016	1.2016
16	**10-1-2024**	**12-31-2024**	1.2077	1.2077
17	**1-1-2025**	**3-31-2025**	1.1281	1.1281
18	**4-1-2025**	**6-30-2025**	1.3335	1.3335
19	**7-1-2025**	**9-30-2025**	0.8503	0.8503
		Highest	4.3305	3.6984

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8832	0.0739	2.6072	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2654	55.2654	5.0800e-003	9.4000e-004	55.6711
Energy	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	858.8680	858.8680	0.0348	0.0122	863.3584
Mobile	0.5194	2.0451	7.1587	0.0304	3.1252	0.0216	3.1468	0.8369	0.0200	0.8569	0.0000	2,809.7399	2,809.7399	0.1088	0.0000	2,812.4603
Stationary	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Waste						0.0000	0.0000		0.0000	0.0000	59.5596	0.0000	59.5596	3.5199	0.0000	147.5563
Water						0.0000	0.0000		0.0000	0.0000	8.1114	137.8097	145.9210	0.8407	0.0212	173.2657
Total	**2.4641**	**2.5355**	**9.9604**	**0.0328**	**3.1252**	**0.0675**	**3.1927**	**0.8369**	**0.0659**	**0.9028**	**67.6710**	**3,874.0620**	**3,941.7330**	**4.5110**	**0.0343**	**4,064.7342**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8832	0.0739	2.6072	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2654	55.2654	5.0800e-003	9.4000e-004	55.6711
Energy	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	858.8680	858.8680	0.0348	0.0122	863.3584
Mobile	0.5194	2.0451	7.1587	0.0304	3.1252	0.0216	3.1468	0.8369	0.0200	0.8569	0.0000	2,809.7399	2,809.7399	0.1088	0.0000	2,812.4603
Stationary	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Waste						0.0000	0.0000		0.0000	0.0000	59.5596	0.0000	59.5596	3.5199	0.0000	147.5563
Water						0.0000	0.0000		0.0000	0.0000	8.1114	137.8097	145.9210	0.8407	0.0212	173.2657
Total	**2.4641**	**2.5355**	**9.9604**	**0.0328**	**3.1252**	**0.0675**	**3.1927**	**0.8369**	**0.0659**	**0.9028**	**67.6710**	**3,874.0620**	**3,941.7330**	**4.5110**	**0.0343**	**4,064.7342**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/4/2021	6	54	
2	Grading	Grading	3/5/2021	7/23/2021	6	121	
3	Building Construction	Building Construction	7/26/2021	5/19/2025	6	1195	
4	Paving	Paving	5/20/2025	9/9/2025	6	97	
5	Architectural Coating	Architectural Coating	4/1/2025	12/31/2025	6	236	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 544.5

Acres of Paving: 9

Residential Indoor: 911,250; Residential Outdoor: 303,750; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,000 (Architectural Coating – sqft)

OffRoad Equipment

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Bore/Drill Rigs	3	8.00	221	0.50
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	17,143.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	313.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4878	0.0000	0.4878	0.2681	0.0000	0.2681	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1050	1.0934	0.5712	1.0300e-003		0.0552	0.0552		0.0508	0.0508	0.0000	90.2764	90.2764	0.0292	0.0000	91.0064
Total	**0.1050**	**1.0934**	**0.5712**	**1.0300e-003**	**0.4878**	**0.0552**	**0.5430**	**0.2681**	**0.0508**	**0.3189**	**0.0000**	**90.2764**	**90.2764**	**0.0292**	**0.0000**	**91.0064**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2000e-003	0.0140	5.0000e-005	5.3400e-003	4.0000e-005	5.3700e-003	1.4200e-003	3.0000e-005	1.4500e-003	0.0000	4.4575	4.4575	1.0000e-004	0.0000	4.4599
Total	**1.7800e-003**	**1.2000e-003**	**0.0140**	**5.0000e-005**	**5.3400e-003**	**4.0000e-005**	**5.3700e-003**	**1.4200e-003**	**3.0000e-005**	**1.4500e-003**	**0.0000**	**4.4575**	**4.4575**	**1.0000e-004**	**0.0000**	**4.4599**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4878	0.0000	0.4878	0.2681	0.0000	0.2681	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1050	1.0934	0.5712	1.0300e-003		0.0552	0.0552		0.0508	0.0508	0.0000	90.2763	90.2763	0.0292	0.0000	91.0063
Total	**0.1050**	**1.0934**	**0.5712**	**1.0300e-003**	**0.4878**	**0.0552**	**0.5430**	**0.2681**	**0.0508**	**0.3189**	**0.0000**	**90.2763**	**90.2763**	**0.0292**	**0.0000**	**91.0063**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2000e-003	0.0140	5.0000e-005	5.3400e-003	4.0000e-005	5.3700e-003	1.4200e-003	3.0000e-005	1.4500e-003	0.0000	4.4575	4.4575	1.0000e-004	0.0000	4.4599
Total	**1.7800e-003**	**1.2000e-003**	**0.0140**	**5.0000e-005**	**5.3400e-003**	**4.0000e-005**	**5.3700e-003**	**1.4200e-003**	**3.0000e-005**	**1.4500e-003**	**0.0000**	**4.4575**	**4.4575**	**1.0000e-004**	**0.0000**	**4.4599**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6531	0.0000	0.6531	0.2314	0.0000	0.2314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3660	4.1022	2.7157	5.5900e-003		0.1705	0.1705		0.1569	0.1569	0.0000	490.8263	490.8263	0.1587	0.0000	494.7949
Total	**0.3660**	**4.1022**	**2.7157**	**5.5900e-003**	**0.6531**	**0.1705**	**0.8236**	**0.2314**	**0.1569**	**0.3883**	**0.0000**	**490.8263**	**490.8263**	**0.1587**	**0.0000**	**494.7949**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0624	2.2469	0.6117	6.4200e-003	0.1469	6.9000e-003	0.1538	0.0403	6.6000e-003	0.0469	0.0000	651.0443	651.0443	0.0686	0.0000	652.7591
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5400e-003	3.7300e-003	0.0435	1.5000e-004	0.0166	1.1000e-004	0.0167	4.4100e-003	1.0000e-004	4.5100e-003	0.0000	13.8725	13.8725	3.0000e-004	0.0000	13.8799
Total	**0.0679**	**2.2507**	**0.6552**	**6.5700e-003**	**0.1635**	**7.0100e-003**	**0.1705**	**0.0447**	**6.7000e-003**	**0.0514**	**0.0000**	**664.9168**	**664.9168**	**0.0689**	**0.0000**	**666.6390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6531	0.0000	0.6531	0.2314	0.0000	0.2314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2313	3.2565	2.9755	5.5900e-003		0.1359	0.1359		0.1303	0.1303	0.0000	490.8258	490.8258	0.1587	0.0000	494.7943
Total	**0.2313**	**3.2565**	**2.9755**	**5.5900e-003**	**0.6531**	**0.1359**	**0.7890**	**0.2314**	**0.1303**	**0.3618**	**0.0000**	**490.8258**	**490.8258**	**0.1587**	**0.0000**	**494.7943**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0624	2.2469	0.6117	6.4200e-003	0.1469	6.9000e-003	0.1538	0.0403	6.6000e-003	0.0469	0.0000	651.0443	651.0443	0.0686	0.0000	652.7591
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5400e-003	3.7300e-003	0.0435	1.5000e-004	0.0166	1.1000e-004	0.0167	4.4100e-003	1.0000e-004	4.5100e-003	0.0000	13.8725	13.8725	3.0000e-004	0.0000	13.8799
Total	**0.0679**	**2.2507**	**0.6552**	**6.5700e-003**	**0.1635**	**7.0100e-003**	**0.1705**	**0.0447**	**6.7000e-003**	**0.0514**	**0.0000**	**664.9168**	**664.9168**	**0.0689**	**0.0000**	**666.6390**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1833	1.8153	1.5616	3.7800e-003		0.0845	0.0845		0.0791	0.0791	0.0000	328.7041	328.7041	0.0933	0.0000	331.0359
Total	**0.1833**	**1.8153**	**1.5616**	**3.7800e-003**		**0.0845**	**0.0845**		**0.0791**	**0.0791**	**0.0000**	**328.7041**	**328.7041**	**0.0933**	**0.0000**	**331.0359**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.7440	0.2086	1.9100e-003	0.0492	1.5500e-003	0.0507	0.0142	1.4800e-003	0.0157	0.0000	188.4534	188.4534	0.0153	0.0000	188.8348
Worker	0.0786	0.0528	0.6159	2.1700e-003	0.2354	1.5500e-003	0.2369	0.0625	1.4300e-003	0.0639	0.0000	196.6500	196.6500	4.2100e-003	0.0000	196.7553
Total	**0.0999**	**0.7968**	**0.8245**	**4.0800e-003**	**0.2845**	**3.1000e-003**	**0.2876**	**0.0767**	**2.9100e-003**	**0.0796**	**0.0000**	**385.1034**	**385.1034**	**0.0195**	**0.0000**	**385.5901**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1833	1.8153	1.5616	3.7800e-003		0.0845	0.0845		0.0791	0.0791	0.0000	328.7037	328.7037	0.0933	0.0000	331.0355
Total	**0.1833**	**1.8153**	**1.5616**	**3.7800e-003**		**0.0845**	**0.0845**		**0.0791**	**0.0791**	**0.0000**	**328.7037**	**328.7037**	**0.0933**	**0.0000**	**331.0355**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.7440	0.2086	1.9100e-003	0.0492	1.5500e-003	0.0507	0.0142	1.4800e-003	0.0157	0.0000	188.4534	188.4534	0.0153	0.0000	188.8348
Worker	0.0786	0.0528	0.6159	2.1700e-003	0.2354	1.5500e-003	0.2369	0.0625	1.4300e-003	0.0639	0.0000	196.6500	196.6500	4.2100e-003	0.0000	196.7553
Total	**0.0999**	**0.7968**	**0.8245**	**4.0800e-003**	**0.2845**	**3.1000e-003**	**0.2876**	**0.0767**	**2.9100e-003**	**0.0796**	**0.0000**	**385.1034**	**385.1034**	**0.0195**	**0.0000**	**385.5901**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3722	3.5079	3.5192	8.6500e-003		0.1608	0.1608		0.1506	0.1506	0.0000	751.7568	751.7568	0.2127	0.0000	757.0749
Total	**0.3722**	**3.5079**	**3.5192**	**8.6500e-003**		**0.1608**	**0.1608**		**0.1506**	**0.1506**	**0.0000**	**751.7568**	**751.7568**	**0.2127**	**0.0000**	**757.0749**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0457	1.6064	0.4597	4.3100e-003	0.1123	3.0700e-003	0.1154	0.0324	2.9400e-003	0.0353	0.0000	426.3088	426.3088	0.0337	0.0000	427.1520
Worker	0.1698	0.1093	1.3118	4.7800e-003	0.5378	3.4800e-003	0.5412	0.1428	3.2000e-003	0.1460	0.0000	432.6474	432.6474	8.7300e-003	0.0000	432.8658
Total	**0.2156**	**1.7157**	**1.7715**	**9.0900e-003**	**0.6501**	**6.5500e-003**	**0.6566**	**0.1752**	**6.1400e-003**	**0.1813**	**0.0000**	**858.9562**	**858.9562**	**0.0425**	**0.0000**	**860.0177**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3722	3.5079	3.5192	8.6500e-003		0.1608	0.1608		0.1506	0.1506	0.0000	751.7559	751.7559	0.2127	0.0000	757.0740
Total	**0.3722**	**3.5079**	**3.5192**	**8.6500e-003**		**0.1608**	**0.1608**		**0.1506**	**0.1506**	**0.0000**	**751.7559**	**751.7559**	**0.2127**	**0.0000**	**757.0740**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0457	1.6064	0.4597	4.3100e-003	0.1123	3.0700e-003	0.1154	0.0324	2.9400e-003	0.0353	0.0000	426.3088	426.3088	0.0337	0.0000	427.1520
Worker	0.1698	0.1093	1.3118	4.7800e-003	0.5378	3.4800e-003	0.5412	0.1428	3.2000e-003	0.1460	0.0000	432.6474	432.6474	8.7300e-003	0.0000	432.8658
Total	**0.2156**	**1.7157**	**1.7715**	**9.0900e-003**	**0.6501**	**6.5500e-003**	**0.6566**	**0.1752**	**6.1400e-003**	**0.1813**	**0.0000**	**858.9562**	**858.9562**	**0.0425**	**0.0000**	**860.0177**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3460	3.1986	3.4855	8.6300e-003		0.1401	0.1401		0.1312	0.1312	0.0000	750.2613	750.2613	0.2117	0.0000	755.5542
Total	**0.3460**	**3.1986**	**3.4855**	**8.6300e-003**		**0.1401**	**0.1401**		**0.1312**	**0.1312**	**0.0000**	**750.2613**	**750.2613**	**0.2117**	**0.0000**	**755.5542**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0347	1.2024	0.4249	4.1500e-003	0.1120	1.4700e-003	0.1134	0.0323	1.4100e-003	0.0337	0.0000	412.1086	412.1086	0.0312	0.0000	412.8881
Worker	0.1605	0.0989	1.2180	4.5800e-003	0.5360	3.4100e-003	0.5394	0.1424	3.1300e-003	0.1455	0.0000	414.7007	414.7007	7.8900e-003	0.0000	414.8979
Total	**0.1952**	**1.3013**	**1.6429**	**8.7300e-003**	**0.6480**	**4.8800e-003**	**0.6529**	**0.1746**	**4.5400e-003**	**0.1792**	**0.0000**	**826.8092**	**826.8092**	**0.0391**	**0.0000**	**827.7860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3460	3.1986	3.4854	8.6300e-003		0.1401	0.1401		0.1312	0.1312	0.0000	750.2604	750.2604	0.2117	0.0000	755.5533
Total	**0.3460**	**3.1986**	**3.4854**	**8.6300e-003**		**0.1401**	**0.1401**		**0.1312**	**0.1312**	**0.0000**	**750.2604**	**750.2604**	**0.2117**	**0.0000**	**755.5533**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0347	1.2024	0.4249	4.1500e-003	0.1120	1.4700e-003	0.1134	0.0323	1.4100e-003	0.0337	0.0000	412.1086	412.1086	0.0312	0.0000	412.8881
Worker	0.1605	0.0989	1.2180	4.5800e-003	0.5360	3.4100e-003	0.5394	0.1424	3.1300e-003	0.1455	0.0000	414.7007	414.7007	7.8900e-003	0.0000	414.8979
Total	**0.1952**	**1.3013**	**1.6429**	**8.7300e-003**	**0.6480**	**4.8800e-003**	**0.6529**	**0.1746**	**4.5400e-003**	**0.1792**	**0.0000**	**826.8092**	**826.8092**	**0.0391**	**0.0000**	**827.7860**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3302	3.0060	3.4983	8.7000e-003		0.1258	0.1258		0.1177	0.1177	0.0000	755.9778	755.9778	0.2129	0.0000	761.2990
Total	**0.3302**	**3.0060**	**3.4983**	**8.7000e-003**		**0.1258**	**0.1258**		**0.1177**	**0.1177**	**0.0000**	**755.9778**	**755.9778**	**0.2129**	**0.0000**	**761.2990**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0338	1.1948	0.4186	4.1400e-003	0.1127	1.4500e-003	0.1141	0.0325	1.3800e-003	0.0339	0.0000	411.4768	411.4768	0.0309	0.0000	412.2490
Worker	0.1537	0.0907	1.1402	4.4300e-003	0.5395	3.3700e-003	0.5428	0.1433	3.1000e-003	0.1464	0.0000	400.8235	400.8235	7.2000e-003	0.0000	401.0036
Total	**0.1875**	**1.2855**	**1.5587**	**8.5700e-003**	**0.6521**	**4.8200e-003**	**0.6570**	**0.1758**	**4.4800e-003**	**0.1802**	**0.0000**	**812.3002**	**812.3002**	**0.0381**	**0.0000**	**813.2525**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3302	3.0060	3.4983	8.7000e-003		0.1258	0.1258		0.1177	0.1177	0.0000	755.9769	755.9769	0.2129	0.0000	761.2981
Total	**0.3302**	**3.0060**	**3.4983**	**8.7000e-003**		**0.1258**	**0.1258**		**0.1177**	**0.1177**	**0.0000**	**755.9769**	**755.9769**	**0.2129**	**0.0000**	**761.2981**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0338	1.1948	0.4186	4.1400e-003	0.1127	1.4500e-003	0.1141	0.0325	1.3800e-003	0.0339	0.0000	411.4768	411.4768	0.0309	0.0000	412.2490
Worker	0.1537	0.0907	1.1402	4.4300e-003	0.5395	3.3700e-003	0.5428	0.1433	3.1000e-003	0.1464	0.0000	400.8235	400.8235	7.2000e-003	0.0000	401.0036
Total	**0.1875**	**1.2855**	**1.5587**	**8.5700e-003**	**0.6521**	**4.8200e-003**	**0.6570**	**0.1758**	**4.4800e-003**	**0.1802**	**0.0000**	**812.3002**	**812.3002**	**0.0381**	**0.0000**	**813.2525**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1187	1.0749	1.3205	3.3000e-003		0.0423	0.0423		0.0396	0.0396	0.0000	286.5247	286.5247	0.0805	0.0000	288.5366
Total	**0.1187**	**1.0749**	**1.3205**	**3.3000e-003**		**0.0423**	**0.0423**		**0.0396**	**0.0396**	**0.0000**	**286.5247**	**286.5247**	**0.0805**	**0.0000**	**288.5366**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0125	0.4469	0.1567	1.5600e-003	0.0427	5.4000e-004	0.0432	0.0123	5.1000e-004	0.0128	0.0000	154.9864	154.9864	0.0115	0.0000	155.2750
Worker	0.0557	0.0315	0.4032	1.6100e-003	0.2045	1.2600e-003	0.2057	0.0543	1.1600e-003	0.0555	0.0000	145.7674	145.7674	2.5000e-003	0.0000	145.8298
Total	**0.0682**	**0.4784**	**0.5598**	**3.1700e-003**	**0.2472**	**1.8000e-003**	**0.2489**	**0.0666**	**1.6700e-003**	**0.0683**	**0.0000**	**300.7538**	**300.7538**	**0.0140**	**0.0000**	**301.1048**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1187	1.0749	1.3205	3.3000e-003		0.0423	0.0423		0.0396	0.0396	0.0000	286.5243	286.5243	0.0805	0.0000	288.5362
Total	**0.1187**	**1.0749**	**1.3205**	**3.3000e-003**		**0.0423**	**0.0423**		**0.0396**	**0.0396**	**0.0000**	**286.5243**	**286.5243**	**0.0805**	**0.0000**	**288.5362**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0125	0.4469	0.1567	1.5600e-003	0.0427	5.4000e-004	0.0432	0.0123	5.1000e-004	0.0128	0.0000	154.9864	154.9864	0.0115	0.0000	155.2750
Worker	0.0557	0.0315	0.4032	1.6100e-003	0.2045	1.2600e-003	0.2057	0.0543	1.1600e-003	0.0555	0.0000	145.7674	145.7674	2.5000e-003	0.0000	145.8298
Total	**0.0682**	**0.4784**	**0.5598**	**3.1700e-003**	**0.2472**	**1.8000e-003**	**0.2489**	**0.0666**	**1.6700e-003**	**0.0683**	**0.0000**	**300.7538**	**300.7538**	**0.0140**	**0.0000**	**301.1048**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0444	0.4162	0.7070	1.1100e-003		0.0203	0.0203		0.0187	0.0187	0.0000	97.0934	97.0934	0.0314	0.0000	97.8784
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0562**	**0.4162**	**0.7070**	**1.1100e-003**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**97.0934**	**97.0934**	**0.0314**	**0.0000**	**97.8784**

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.2300e-003	0.0158	6.0000e-005	7.9900e-003	5.0000e-005	8.0400e-003	2.1200e-003	5.0000e-005	2.1700e-003	0.0000	5.6942	5.6942	1.0000e-004	0.0000	5.6966
Total	**2.1800e-003**	**1.2300e-003**	**0.0158**	**6.0000e-005**	**7.9900e-003**	**5.0000e-005**	**8.0400e-003**	**2.1200e-003**	**5.0000e-005**	**2.1700e-003**	**0.0000**	**5.6942**	**5.6942**	**1.0000e-004**	**0.0000**	**5.6966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0444	0.4162	0.7070	1.1100e-003		0.0203	0.0203		0.0187	0.0187	0.0000	97.0933	97.0933	0.0314	0.0000	97.8783
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0562**	**0.4162**	**0.7070**	**1.1100e-003**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**97.0933**	**97.0933**	**0.0314**	**0.0000**	**97.8783**

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.2300e-003	0.0158	6.0000e-005	7.9900e-003	5.0000e-005	8.0400e-003	2.1200e-003	5.0000e-005	2.1700e-003	0.0000	5.6942	5.6942	1.0000e-004	0.0000	5.6966
Total	**2.1800e-003**	**1.2300e-003**	**0.0158**	**6.0000e-005**	**7.9900e-003**	**5.0000e-005**	**8.0400e-003**	**2.1200e-003**	**5.0000e-005**	**2.1700e-003**	**0.0000**	**5.6942**	**5.6942**	**1.0000e-004**	**0.0000**	**5.6966**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1352	0.2135	3.5000e-004		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	30.1284	30.1284	1.6400e-003	0.0000	30.1695
Total	**1.4837**	**0.1352**	**0.2135**	**3.5000e-004**		**6.0800e-003**	**6.0800e-003**		**6.0800e-003**	**6.0800e-003**	**0.0000**	**30.1284**	**30.1284**	**1.6400e-003**	**0.0000**	**30.1695**

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0223	0.0126	0.1609	6.4000e-004	0.0816	5.0000e-004	0.0821	0.0217	4.6000e-004	0.0221	0.0000	58.1864	58.1864	1.0000e-003	0.0000	58.2113
Total	**0.0223**	**0.0126**	**0.1609**	**6.4000e-004**	**0.0816**	**5.0000e-004**	**0.0821**	**0.0217**	**4.6000e-004**	**0.0221**	**0.0000**	**58.1864**	**58.1864**	**1.0000e-003**	**0.0000**	**58.2113**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1352	0.2135	3.5000e-004		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	30.1284	30.1284	1.6400e-003	0.0000	30.1694
Total	**1.4837**	**0.1352**	**0.2135**	**3.5000e-004**		**6.0800e-003**	**6.0800e-003**		**6.0800e-003**	**6.0800e-003**	**0.0000**	**30.1284**	**30.1284**	**1.6400e-003**	**0.0000**	**30.1694**

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0223	0.0126	0.1609	6.4000e-004	0.0816	5.0000e-004	0.0821	0.0217	4.6000e-004	0.0221	0.0000	58.1864	58.1864	1.0000e-003	0.0000	58.2113
Total	**0.0223**	**0.0126**	**0.1609**	**6.4000e-004**	**0.0816**	**5.0000e-004**	**0.0821**	**0.0217**	**4.6000e-004**	**0.0221**	**0.0000**	**58.1864**	**58.1864**	**1.0000e-003**	**0.0000**	**58.2113**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5194	2.0451	7.1587	0.0304	3.1252	0.0216	3.1468	0.8369	0.0200	0.8569	0.0000	2,809.7399	2,809.7399	0.1088	0.0000	2,812.4603
Unmitigated	0.5194	2.0451	7.1587	0.0304	3.1252	0.0216	3.1468	0.8369	0.0200	0.8569	0.0000	2,809.7399	2,809.7399	0.1088	0.0000	2,812.4603

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	80.91	68.25	87.00	230,121	230,121
Parking Lot	0.00	0.00	0.00		
Single Family Housing	2,360.00	2,457.50	2150.00	8,009,560	8,009,560
Total	2,440.91	2,525.75	2,237.00	8,239,681	8,239,681

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854
Parking Lot	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854
Single Family Housing	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	514.6060	514.6060	0.0282	5.8400e-003	517.0506
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	514.6060	514.6060	0.0282	5.8400e-003	517.0506
NaturalGas Mitigated	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	344.2621	344.2621	6.6000e-003	6.3100e-003	346.3078
NaturalGas Unmitigated	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	344.2621	344.2621	6.6000e-003	6.3100e-003	346.3078

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.45123e+006	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	344.2621	344.2621	6.6000e-003	6.3100e-003	346.3078
Total		**0.0348**	**0.2973**	**0.1265**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**	**0.0000**	**344.2621**	**344.2621**	**6.6000e-003**	**6.3100e-003**	**346.3078**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.45123e+006	0.0348	0.2973	0.1265	1.9000e-003		0.0240	0.0240		0.0240	0.0240	0.0000	344.2621	344.2621	6.6000e-003	6.3100e-003	346.3078
Total		**0.0348**	**0.2973**	**0.1265**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**	**0.0000**	**344.2621**	**344.2621**	**6.6000e-003**	**6.3100e-003**	**346.3078**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	140000	33.5931	1.8400e-003	3.8000e-004	33.7526
Single Family Housing	2.00464e+006	481.0129	0.0264	5.4600e-003	483.2979
Total		**514.6060**	**0.0282**	**5.8400e-003**	**517.0506**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	140000	33.5931	1.8400e-003	3.8000e-004	33.7526
Single Family Housing	2.00464e+006	481.0129	0.0264	5.4600e-003	483.2979
Total		**514.6060**	**0.0282**	**5.8400e-003**	**517.0506**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.8832	0.0739	2.6072	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2654	55.2654	5.0800e-003	9.4000e-004	55.6711
Unmitigated	1.8832	0.0739	2.6072	4.2000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	55.2654	55.2654	5.0800e-003	9.4000e-004	55.6711

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6532					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1600e-003	0.0441	0.0188	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003	0.0000	51.0291	51.0291	9.8000e-004	9.4000e-004	51.3324
Landscaping	0.0785	0.0298	2.5885	1.4000e-004		0.0143	0.0143		0.0143	0.0143	0.0000	4.2363	4.2363	4.1000e-003	0.0000	4.3387
Total	**1.8832**	**0.0738**	**2.6072**	**4.2000e-004**		**0.0179**	**0.0179**		**0.0179**	**0.0179**	**0.0000**	**55.2654**	**55.2654**	**5.0800e-003**	**9.4000e-004**	**55.6711**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6532					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1600e-003	0.0441	0.0188	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003	0.0000	51.0291	51.0291	9.8000e-004	9.4000e-004	51.3324
Landscaping	0.0785	0.0298	2.5885	1.4000e-004		0.0143	0.0143		0.0143	0.0143	0.0000	4.2363	4.2363	4.1000e-003	0.0000	4.3387
Total	**1.8832**	**0.0738**	**2.6072**	**4.2000e-004**		**0.0179**	**0.0179**		**0.0179**	**0.0179**	**0.0000**	**55.2654**	**55.2654**	**5.0800e-003**	**9.4000e-004**	**55.6711**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	145.9210	0.8407	0.0212	173.2657
Unmitigated	145.9210	0.8407	0.0212	173.2657

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.61067	14.9572	8.2000e-004	1.7000e-004	15.0282
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	25.5674 / 16.1186	130.9638	0.8399	0.0211	158.2375
Total		**145.9210**	**0.8407**	**0.0212**	**173.2657**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.61067	14.9572	8.2000e-004	1.7000e-004	15.0282
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	25.5674 / 16.1186	130.9638	0.8399	0.0211	158.2375
Total		**145.9210**	**0.8407**	**0.0212**	**173.2657**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.5596	3.5199	0.0000	147.5563
Unmitigated	59.5596	3.5199	0.0000	147.5563

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.26	0.0528	3.1200e-003	0.0000	0.1308
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	293.15	59.5068	3.5168	0.0000	147.4256
Total		**59.5596**	**3.5199**	**0.0000**	**147.5563**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.26	0.0528	3.1200e-003	0.0000	0.1308
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	293.15	59.5068	3.5168	0.0000	147.4256
Total		**59.5596**	**3.5199**	**0.0000**	**147.5563**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.01	36	903	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0267	0.1193	0.0680	1.3000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	12.3790	12.3790	1.7400e-003	0.0000	12.4223
Total	**0.0267**	**0.1193**	**0.0680**	**1.3000e-004**		**3.9200e-003**	**3.9200e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**12.3790**	**12.3790**	**1.7400e-003**	**0.0000**	**12.4223**

11.0 Vegetation

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
City Park	3.00	Acre	3.00	130,680.00	0
Single Family Housing	250.00	Dwelling Unit	20.30	450,000.00	715

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	529	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Summer

Project Characteristics - Matches DEIR's model.

Land Use - Matches DEIR's model, except see SWAPE comment regarding parking.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model.

Off-road Equipment -

Trips and VMT - Matches DEIR's model.

Grading -

Vehicle Trips - Matches DEIR's model.

Energy Use -

Water And Wastewater - Matches DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps -

Woodstoves - Matches DEIR's model.

Construction Off-road Equipment Mitigation - Matches DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	54.00
tblConstructionPhase	NumDays	45.00	121.00
tblConstructionPhase	NumDays	500.00	1,195.00
tblConstructionPhase	NumDays	35.00	236.00
tblConstructionPhase	NumDays	35.00	97.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/28/2021	3/4/2021
tblConstructionPhase	PhaseEndDate	4/1/2021	7/23/2021
tblConstructionPhase	PhaseEndDate	3/2/2023	5/19/2025
tblConstructionPhase	PhaseEndDate	6/8/2023	12/31/2025
tblConstructionPhase	PhaseEndDate	4/20/2023	9/9/2025
tblConstructionPhase	PhaseStartDate	1/29/2021	3/5/2021
tblConstructionPhase	PhaseStartDate	4/2/2021	7/26/2021
tblConstructionPhase	PhaseStartDate	4/21/2023	4/1/2025
tblConstructionPhase	PhaseStartDate	3/3/2023	5/20/2025
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	12.50	0.00
tblGrading	MaterialImported	0.00	120,000.00
tblLandUse	LotAcreage	81.17	20.30
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	529
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	903.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,143.00
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	16.74	29.00
tblVehicleTrips	SU_TR	8.62	8.60
tblVehicleTrips	WD_TR	1.89	26.97
tblVehicleTrips	WD_TR	9.52	9.44

tblWater	IndoorWaterUseRate	16,288,506.41	25,567,434.00
tblWater	OutdoorWaterUseRate	3,574,444.05	5,610,666.00
tblWater	OutdoorWaterUseRate	10,268,840.99	16,118,600.00
tblWoodstoves	NumberCatalytic	12.50	0.00
tblWoodstoves	NumberNoncatalytic	12.50	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.1607	103.8766	55.5415	0.2018	18.2675	2.9331	20.3132	9.9840	2.7026	11.8661	0.0000	21,143.9294	21,143.9294	4.1356	0.0000	21,247.3207
2022	3.7322	33.1523	34.1603	0.1149	4.2269	1.0688	5.2957	1.1374	1.0009	2.1383	0.0000	11,500.4757	11,500.4757	1.7951	0.0000	11,545.3543
2023	3.4469	28.7026	33.2312	0.1128	4.2269	0.9289	5.1558	1.1374	0.8696	2.0070	0.0000	11,292.7792	11,292.7792	1.7705	0.0000	11,337.0418
2024	3.2743	27.2001	32.5441	0.1114	4.2269	0.8317	5.0586	1.1374	0.7781	1.9156	0.0000	11,154.9404	11,154.9404	1.7603	0.0000	11,198.9482
2025	15.8766	27.2193	35.1705	0.1186	4.9311	0.7970	5.7282	1.3242	0.7486	2.0728	0.0000	11,865.9393	11,865.9393	1.7746	0.0000	11,910.3033
Maximum	**15.8766**	**103.8766**	**55.5415**	**0.2018**	**18.2675**	**2.9331**	**20.3132**	**9.9840**	**2.7026**	**11.8661**	**0.0000**	**21,143.9294**	**21,143.9294**	**4.1356**	**0.0000**	**21,247.3207**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.9342	89.8978	59.8348	0.2018	18.2675	2.3612	20.3132	9.9840	2.2639	11.8661	0.0000	21,143.9294	21,143.9294	4.1356	0.0000	21,247.3207
2022	3.7322	33.1523	34.1603	0.1149	4.2269	1.0688	5.2957	1.1374	1.0009	2.1383	0.0000	11,500.4757	11,500.4757	1.7951	0.0000	11,545.3542
2023	3.4469	28.7026	33.2312	0.1128	4.2269	0.9289	5.1558	1.1374	0.8696	2.0070	0.0000	11,292.7792	11,292.7792	1.7705	0.0000	11,337.0418
2024	3.2743	27.2001	32.5441	0.1114	4.2269	0.8317	5.0586	1.1374	0.7781	1.9156	0.0000	11,154.9404	11,154.9404	1.7603	0.0000	11,198.9482
2025	15.8766	27.2193	35.1705	0.1186	4.9311	0.7970	5.7282	1.3242	0.7486	2.0728	0.0000	11,865.9393	11,865.9393	1.7746	0.0000	11,910.3033
Maximum	**15.8766**	**89.8978**	**59.8348**	**0.2018**	**18.2675**	**2.3612**	**20.3132**	**9.9840**	**2.2639**	**11.8661**	**0.0000**	**21,143.9294**	**21,143.9294**	**4.1356**	**0.0000**	**21,247.3207**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.65**	**6.35**	**-2.25**	**0.00**	**0.00**	**8.72**	**0.00**	**0.00**	**7.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022
Energy	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Mobile	3.1367	11.2919	42.6283	0.1807	18.3078	0.1244	18.4323	4.8955	0.1154	5.0108		18,408.8695	18,408.8695	0.6939		18,426.2181
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**14.2431**	**16.7503**	**65.5671**	**0.2148**	**18.3078**	**0.6580**	**18.9659**	**4.8955**	**0.6489**	**5.5444**	**0.0000**	**25,033.1721**	**25,033.1721**	**0.8572**	**0.1206**	**25,090.5486**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022
Energy	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Mobile	3.1367	11.2919	42.6283	0.1807	18.3078	0.1244	18.4323	4.8955	0.1154	5.0108		18,408.8695	18,408.8695	0.6939		18,426.2181
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**14.2431**	**16.7503**	**65.5671**	**0.2148**	**18.3078**	**0.6580**	**18.9659**	**4.8955**	**0.6489**	**5.5444**	**0.0000**	**25,033.1721**	**25,033.1721**	**0.8572**	**0.1206**	**25,090.5486**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/4/2021	6	54	
2	Grading	Grading	3/5/2021	7/23/2021	6	121	
3	Building Construction	Building Construction	7/26/2021	5/19/2025	6	1195	
4	Paving	Paving	5/20/2025	9/9/2025	6	97	
5	Architectural Coating	Architectural Coating	4/1/2025	12/31/2025	6	236	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 544.5

Acres of Paving: 9

Residential Indoor: 911,250; Residential Outdoor: 303,750; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,000 (Architectural Coating – sqft)

OffRoad Equipment

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Bore/Drill Rigs	3	8.00	221	0.50
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	17,143.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	313.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963
Total	**0.0650**	**0.0393**	**0.5467**	**1.9000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**189.3950**	**189.3950**	**4.0600e-003**		**189.4963**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963
Total	**0.0650**	**0.0393**	**0.5467**	**1.9000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**189.3950**	**189.3950**	**4.0600e-003**		**189.4963**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	6.0501	67.8054	44.8878	0.0923		2.8181	2.8181		2.5927	2.5927		8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**6.0501**	**67.8054**	**44.8878**	**0.0923**	**10.7943**	**2.8181**	**13.6124**	**3.8255**	**2.5927**	**6.4182**		**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0204	36.0166	9.8943	0.1069	2.4667	0.1132	2.5798	0.6752	0.1083	0.7835		11,938.0144	11,938.0144	1.2377		11,968.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0902	0.0546	0.7593	2.6400e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		263.0485	263.0485	5.6300e-003		263.1894
Total	**1.1106**	**36.0712**	**10.6536**	**0.1095**	**2.7461**	**0.1150**	**2.8611**	**0.7494**	**0.1099**	**0.8593**		**12,201.0630**	**12,201.0630**	**1.2433**		**12,232.1466**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	3.8236	53.8266	49.1811	0.0923		2.2462	2.2462		2.1540	2.1540	0.0000	8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**3.8236**	**53.8266**	**49.1811**	**0.0923**	**10.7943**	**2.2462**	**13.0406**	**3.8255**	**2.1540**	**5.9795**	**0.0000**	**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0204	36.0166	9.8943	0.1069	2.4667	0.1132	2.5798	0.6752	0.1083	0.7835		11,938.0144	11,938.0144	1.2377		11,968.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0902	0.0546	0.7593	2.6400e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		263.0485	263.0485	5.6300e-003		263.1894
Total	**1.1106**	**36.0712**	**10.6536**	**0.1095**	**2.7461**	**0.1150**	**2.8611**	**0.7494**	**0.1099**	**0.8593**		**12,201.0630**	**12,201.0630**	**1.2433**		**12,232.1466**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542		5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**		**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3042	10.6948	2.9005	0.0281	0.7284	0.0222	0.7506	0.2096	0.0212	0.2308		3,064.2345	3,064.2345	0.2403		3,070.2415
Worker	1.1297	0.6836	9.5067	0.0330	3.4986	0.0227	3.5213	0.9279	0.0209	0.9487		3,293.3677	3,293.3677	0.0705		3,295.1308
Total	**1.4339**	**11.3784**	**12.4072**	**0.0611**	**4.2270**	**0.0449**	**4.2718**	**1.1375**	**0.0421**	**1.1795**		**6,357.6022**	**6,357.6022**	**0.3108**		**6,365.3723**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542	0.0000	5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**	**0.0000**	**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3042	10.6948	2.9005	0.0281	0.7284	0.0222	0.7506	0.2096	0.0212	0.2308		3,064.2345	3,064.2345	0.2403		3,070.2415
Worker	1.1297	0.6836	9.5067	0.0330	3.4986	0.0227	3.5213	0.9279	0.0209	0.9487		3,293.3677	3,293.3677	0.0705		3,295.1308
Total	**1.4339**	**11.3784**	**12.4072**	**0.0611**	**4.2270**	**0.0449**	**4.2718**	**1.1375**	**0.0421**	**1.1795**		**6,357.6022**	**6,357.6022**	**0.3108**		**6,365.3723**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620		5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**		**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2860	10.1181	2.8007	0.0278	0.7283	0.0193	0.7477	0.2096	0.0185	0.2281		3,034.1398	3,034.1398	0.2328		3,039.9586
Worker	1.0677	0.6193	8.8729	0.0318	3.4986	0.0222	3.5208	0.9279	0.0204	0.9483		3,171.3199	3,171.3199	0.0641		3,172.9212
Total	**1.3537**	**10.7374**	**11.6735**	**0.0596**	**4.2269**	**0.0415**	**4.2685**	**1.1374**	**0.0389**	**1.1764**		**6,205.4596**	**6,205.4596**	**0.2968**		**6,212.8798**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620	0.0000	5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**	**0.0000**	**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2860	10.1181	2.8007	0.0278	0.7283	0.0193	0.7477	0.2096	0.0185	0.2281		3,034.1398	3,034.1398	0.2328		3,039.9586
Worker	1.0677	0.6193	8.8729	0.0318	3.4986	0.0222	3.5208	0.9279	0.0204	0.9483		3,171.3199	3,171.3199	0.0641		3,172.9212
Total	**1.3537**	**10.7374**	**11.6735**	**0.0596**	**4.2269**	**0.0415**	**4.2685**	**1.1374**	**0.0389**	**1.1764**		**6,205.4596**	**6,205.4596**	**0.2968**		**6,212.8798**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407		5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**		**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2177	7.6367	2.6139	0.0269	0.7283	9.1900e-003	0.7375	0.2096	8.7900e-003	0.2184		2,941.9587	2,941.9587	0.2164		2,947.3681
Worker	1.0111	0.5623	8.2746	0.0306	3.4986	0.0218	3.5204	0.9279	0.0201	0.9479		3,049.4008	3,049.4008	0.0581		3,050.8533
Total	**1.2288**	**8.1990**	**10.8886**	**0.0575**	**4.2269**	**0.0310**	**4.2579**	**1.1374**	**0.0289**	**1.1663**		**5,991.3595**	**5,991.3595**	**0.2745**		**5,998.2214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407	0.0000	5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**	**0.0000**	**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2177	7.6367	2.6139	0.0269	0.7283	9.1900e-003	0.7375	0.2096	8.7900e-003	0.2184		2,941.9587	2,941.9587	0.2164		2,947.3681
Worker	1.0111	0.5623	8.2746	0.0306	3.4986	0.0218	3.5204	0.9279	0.0201	0.9479		3,049.4008	3,049.4008	0.0581		3,050.8533
Total	**1.2288**	**8.1990**	**10.8886**	**0.0575**	**4.2269**	**0.0310**	**4.2579**	**1.1374**	**0.0289**	**1.1663**		**5,991.3595**	**5,991.3595**	**0.2745**		**5,998.2214**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498		5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**		**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2103	7.5413	2.5597	0.0266	0.7283	9.0000e-003	0.7373	0.2096	8.6000e-003	0.2182		2,918.5888	2,918.5888	0.2131		2,923.9169
Worker	0.9609	0.5120	7.7025	0.0294	3.4986	0.0215	3.5201	0.9279	0.0197	0.9476		2,928.5627	2,928.5627	0.0528		2,929.8816
Total	**1.1712**	**8.0534**	**10.2622**	**0.0560**	**4.2269**	**0.0305**	**4.2574**	**1.1374**	**0.0283**	**1.1658**		**5,847.1515**	**5,847.1515**	**0.2659**		**5,853.7985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498	0.0000	5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**	**0.0000**	**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2103	7.5413	2.5597	0.0266	0.7283	9.0000e-003	0.7373	0.2096	8.6000e-003	0.2182		2,918.5888	2,918.5888	0.2131		2,923.9169
Worker	0.9609	0.5120	7.7025	0.0294	3.4986	0.0215	3.5201	0.9279	0.0197	0.9476		2,928.5627	2,928.5627	0.0528		2,929.8816
Total	**1.1712**	**8.0534**	**10.2622**	**0.0560**	**4.2269**	**0.0305**	**4.2574**	**1.1374**	**0.0283**	**1.1658**		**5,847.1515**	**5,847.1515**	**0.2659**		**5,853.7985**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653		5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**		**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2049	7.4437	2.5301	0.0264	0.7283	8.8200e-003	0.7371	0.2096	8.4300e-003	0.2180		2,900.4989	2,900.4989	0.2103		2,905.7570
Worker	0.9181	0.4697	7.1905	0.0282	3.4986	0.0212	3.5198	0.9279	0.0195	0.9473		2,810.1468	2,810.1468	0.0483		2,811.3532
Total	**1.1230**	**7.9133**	**9.7206**	**0.0546**	**4.2269**	**0.0300**	**4.2569**	**1.1374**	**0.0279**	**1.1654**		**5,710.6457**	**5,710.6457**	**0.2586**		**5,717.1102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653	0.0000	5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**	**0.0000**	**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2049	7.4437	2.5301	0.0264	0.7283	8.8200e-003	0.7371	0.2096	8.4300e-003	0.2180		2,900.4989	2,900.4989	0.2103		2,905.7570
Worker	0.9181	0.4697	7.1905	0.0282	3.4986	0.0212	3.5198	0.9279	0.0195	0.9473		2,810.1468	2,810.1468	0.0483		2,811.3532
Total	**1.1230**	**7.9133**	**9.7206**	**0.0546**	**4.2269**	**0.0300**	**4.2569**	**1.1374**	**0.0279**	**1.1654**		**5,710.6457**	**5,710.6457**	**0.2586**		**5,717.1102**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2431					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1582**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0440	0.0225	0.3446	1.3500e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		134.6716	134.6716	2.3100e-003		134.7294
Total	**0.0440**	**0.0225**	**0.3446**	**1.3500e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**134.6716**	**134.6716**	**2.3100e-003**		**134.7294**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2431					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1582**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0440	0.0225	0.3446	1.3500e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		134.6716	134.6716	2.3100e-003		134.7294
Total	**0.0440**	**0.0225**	**0.3446**	**1.3500e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**134.6716**	**134.6716**	**2.3100e-003**		**134.7294**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.4026					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**12.5734**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1848	0.0945	1.4473	5.6700e-003	0.7042	4.2600e-003	0.7085	0.1868	3.9200e-003	0.1907		565.6206	565.6206	9.7100e-003		565.8634
Total	**0.1848**	**0.0945**	**1.4473**	**5.6700e-003**	**0.7042**	**4.2600e-003**	**0.7085**	**0.1868**	**3.9200e-003**	**0.1907**		**565.6206**	**565.6206**	**9.7100e-003**		**565.8634**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.4026					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**12.5734**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1848	0.0945	1.4473	5.6700e-003	0.7042	4.2600e-003	0.7085	0.1868	3.9200e-003	0.1907		565.6206	565.6206	9.7100e-003		565.8634
Total	**0.1848**	**0.0945**	**1.4473**	**5.6700e-003**	**0.7042**	**4.2600e-003**	**0.7085**	**0.1868**	**3.9200e-003**	**0.1907**		**565.6206**	**565.6206**	**9.7100e-003**		**565.8634**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1367	11.2919	42.6283	0.1807	18.3078	0.1244	18.4323	4.8955	0.1154	5.0108		18,408.8695	18,408.8695	0.6939		18,426.2181
Unmitigated	3.1367	11.2919	42.6283	0.1807	18.3078	0.1244	18.4323	4.8955	0.1154	5.0108		18,408.8695	18,408.8695	0.6939		18,426.2181

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	80.91	68.25	87.00	230,121	230,121
Parking Lot	0.00	0.00	0.00		
Single Family Housing	2,360.00	2,457.50	2150.00	8,009,560	8,009,560
Total	2,440.91	2,525.75	2,237.00	8,239,681	8,239,681

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854
Parking Lot	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854
Single Family Housing	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
NaturalGas Unmitigated	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	17674.6	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.1906**	**1.6288**	**0.6931**	**0.0104**		**0.1317**	**0.1317**		**0.1317**	**0.1317**		**2,079.3642**	**2,079.3642**	**0.0399**	**0.0381**	**2,091.7208**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	17.6746	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.1906**	**1.6288**	**0.6931**	**0.0104**		**0.1317**	**0.1317**		**0.1317**	**0.1317**		**2,079.3642**	**2,079.3642**	**0.0399**	**0.0381**	**2,091.7208**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022
Unmitigated	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0584					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6281	0.2383	20.7079	1.1000e-003		0.1147	0.1147		0.1147	0.1147		37.3576	37.3576	0.0361		38.2610
Total	**10.9009**	**3.7633**	**22.2079**	**0.0236**		**0.3997**	**0.3997**		**0.3997**	**0.3997**	**0.0000**	**4,537.3576**	**4,537.3576**	**0.1224**	**0.0825**	**4,565.0022**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0584					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6281	0.2383	20.7079	1.1000e-003		0.1147	0.1147		0.1147	0.1147		37.3576	37.3576	0.0361		38.2610
Total	**10.9009**	**3.7633**	**22.2079**	**0.0236**		**0.3997**	**0.3997**		**0.3997**	**0.3997**	**0.0000**	**4,537.3576**	**4,537.3576**	**0.1224**	**0.0825**	**4,565.0022**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.01	36	903	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**0.0148**	**0.0663**	**0.0378**	**7.0000e-005**		**2.1800e-003**	**2.1800e-003**		**2.1800e-003**	**2.1800e-003**		**7.5808**	**7.5808**	**1.0600e-003**		**7.6074**

11.0 Vegetation

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
City Park	3.00	Acre	3.00	130,680.00	0
Single Family Housing	250.00	Dwelling Unit	20.30	450,000.00	715

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	529	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Winter

Project Characteristics - Matches DEIR's model.

Land Use - Matches DEIR's model, except see SWAPE comment regarding parking.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model.

Off-road Equipment -

Trips and VMT - Matches DEIR's model.

Grading -

Vehicle Trips - Matches DEIR's model.

Energy Use -

Water And Wastewater - Matches DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps -

Woodstoves - Matches DEIR's model.

Construction Off-road Equipment Mitigation - Matches DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	54.00
tblConstructionPhase	NumDays	45.00	121.00
tblConstructionPhase	NumDays	500.00	1,195.00
tblConstructionPhase	NumDays	35.00	236.00
tblConstructionPhase	NumDays	35.00	97.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Winter

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/28/2021	3/4/2021
tblConstructionPhase	PhaseEndDate	4/1/2021	7/23/2021
tblConstructionPhase	PhaseEndDate	3/2/2023	5/19/2025
tblConstructionPhase	PhaseEndDate	6/8/2023	12/31/2025
tblConstructionPhase	PhaseEndDate	4/20/2023	9/9/2025
tblConstructionPhase	PhaseStartDate	1/29/2021	3/5/2021
tblConstructionPhase	PhaseStartDate	4/2/2021	7/26/2021
tblConstructionPhase	PhaseStartDate	4/21/2023	4/1/2025
tblConstructionPhase	PhaseStartDate	3/3/2023	5/20/2025
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	12.50	0.00
tblGrading	MaterialImported	0.00	120,000.00
tblLandUse	LotAcreage	81.17	20.30
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	529
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	903.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,143.00
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	16.74	29.00
tblVehicleTrips	SU_TR	8.62	8.60
tblVehicleTrips	WD_TR	1.89	26.97
tblVehicleTrips	WD_TR	9.52	9.44

tblWater	IndoorWaterUseRate	16,288,506.41	25,567,434.00
tblWater	OutdoorWaterUseRate	3,574,444.05	5,610,666.00
tblWater	OutdoorWaterUseRate	10,268,840.99	16,118,600.00
tblWoodstoves	NumberCatalytic	12.50	0.00
tblWoodstoves	NumberNoncatalytic	12.50	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.1977	104.3072	55.9755	0.2001	18.2675	2.9351	20.3132	9.9840	2.7045	11.8661	0.0000	20,948.9520	20,948.9520	4.1630	0.0000	21,053.0281
2022	3.8907	33.1826	33.7299	0.1125	4.2269	1.0695	5.2965	1.1374	1.0016	2.1390	0.0000	11,255.9375	11,255.9375	1.8026	0.0000	11,301.0019
2023	3.5980	28.7141	32.7738	0.1105	4.2269	0.9294	5.1563	1.1374	0.8701	2.0075	0.0000	11,058.4009	11,058.4009	1.7762	0.0000	11,102.8062
2024	3.4216	27.2079	32.1192	0.1092	4.2269	0.8322	5.0591	1.1374	0.7786	1.9161	0.0000	10,927.9739	10,927.9739	1.7658	0.0000	10,972.1177
2025	16.0474	27.2330	34.6590	0.1162	4.9311	0.7975	5.7286	1.3242	0.7491	2.0732	0.0000	11,616.1513	11,616.1513	1.7792	0.0000	11,660.6317
Maximum	**16.0474**	**104.3072**	**55.9755**	**0.2001**	**18.2675**	**2.9351**	**20.3132**	**9.9840**	**2.7045**	**11.8661**	**0.0000**	**20,948.9520**	**20,948.9520**	**4.1630**	**0.0000**	**21,053.0281**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.9712	90.3284	60.2688	0.2001	18.2675	2.3632	20.3132	9.9840	2.2659	11.8661	0.0000	20,948.9520	20,948.9520	4.1630	0.0000	21,053.0281
2022	3.8907	33.1826	33.7299	0.1125	4.2269	1.0695	5.2965	1.1374	1.0016	2.1390	0.0000	11,255.9375	11,255.9375	1.8026	0.0000	11,301.0019
2023	3.5980	28.7141	32.7738	0.1105	4.2269	0.9294	5.1563	1.1374	0.8701	2.0075	0.0000	11,058.4009	11,058.4009	1.7762	0.0000	11,102.8062
2024	3.4216	27.2079	32.1192	0.1092	4.2269	0.8322	5.0591	1.1374	0.7786	1.9161	0.0000	10,927.9739	10,927.9739	1.7658	0.0000	10,972.1177
2025	16.0474	27.2330	34.6590	0.1162	4.9311	0.7975	5.7286	1.3242	0.7491	2.0732	0.0000	11,616.1513	11,616.1513	1.7792	0.0000	11,660.6317
Maximum	**16.0474**	**90.3284**	**60.2688**	**0.2001**	**18.2675**	**2.3632**	**20.3132**	**9.9840**	**2.2659**	**11.8661**	**0.0000**	**20,948.9520**	**20,948.9520**	**4.1630**	**0.0000**	**21,053.0281**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.52**	**6.34**	**-2.27**	**0.00**	**0.00**	**8.71**	**0.00**	**0.00**	**7.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022
Energy	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Mobile	3.0770	11.5880	40.6149	0.1728	18.3078	0.1248	18.4327	4.8955	0.1157	5.0112		17,613.6098	17,613.6098	0.6921		17,630.9115
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**14.1834**	**17.0464**	**63.5538**	**0.2069**	**18.3078**	**0.6584**	**18.9662**	**4.8955**	**0.6493**	**5.5448**	**0.0000**	**24,237.9124**	**24,237.9124**	**0.8554**	**0.1206**	**24,295.2419**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022
Energy	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Mobile	3.0770	11.5880	40.6149	0.1728	18.3078	0.1248	18.4327	4.8955	0.1157	5.0112		17,613.6098	17,613.6098	0.6921		17,630.9115
Stationary	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**14.1834**	**17.0464**	**63.5538**	**0.2069**	**18.3078**	**0.6584**	**18.9662**	**4.8955**	**0.6493**	**5.5448**	**0.0000**	**24,237.9124**	**24,237.9124**	**0.8554**	**0.1206**	**24,295.2419**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/4/2021	6	54	
2	Grading	Grading	3/5/2021	7/23/2021	6	121	
3	Building Construction	Building Construction	7/26/2021	5/19/2025	6	1195	
4	Paving	Paving	5/20/2025	9/9/2025	6	97	
5	Architectural Coating	Architectural Coating	4/1/2025	12/31/2025	6	236	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 544.5

Acres of Paving: 9

Residential Indoor: 911,250; Residential Outdoor: 303,750; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,000 (Architectural Coating – sqft)

OffRoad Equipment

Full Buildout Magnolia Tank Farm EIR Alt 1 Residential - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Bore/Drill Rigs	3	8.00	221	0.50
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	17,143.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	313.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458
Total	**0.0736**	**0.0432**	**0.5045**	**1.8000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**179.2498**	**179.2498**	**3.8400e-003**		**179.3458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458
Total	**0.0736**	**0.0432**	**0.5045**	**1.8000e-003**	**0.2012**	**1.3000e-003**	**0.2025**	**0.0534**	**1.2000e-003**	**0.0546**		**179.2498**	**179.2498**	**3.8400e-003**		**179.3458**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	6.0501	67.8054	44.8878	0.0923		2.8181	2.8181		2.5927	2.5927		8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**6.0501**	**67.8054**	**44.8878**	**0.0923**	**10.7943**	**2.8181**	**13.6124**	**3.8255**	**2.5927**	**6.4182**		**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0455	36.4419	10.3870	0.1053	2.4667	0.1152	2.5819	0.6752	0.1102	0.7855		11,757.1275	11,757.1275	1.2654		11,788.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1022	0.0600	0.7007	2.5000e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		248.9581	248.9581	5.3300e-003		249.0913
Total	**1.1476**	**36.5019**	**11.0876**	**0.1078**	**2.7461**	**0.1170**	**2.8631**	**0.7494**	**0.1119**	**0.8612**		**12,006.0855**	**12,006.0855**	**1.2707**		**12,037.8540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.7943	0.0000	10.7943	3.8255	0.0000	3.8255			0.0000			0.0000
Off-Road	3.8236	53.8266	49.1811	0.0923		2.2462	2.2462		2.1540	2.1540	0.0000	8,942.8665	8,942.8665	2.8923		9,015.1741
Total	**3.8236**	**53.8266**	**49.1811**	**0.0923**	**10.7943**	**2.2462**	**13.0406**	**3.8255**	**2.1540**	**5.9795**	**0.0000**	**8,942.8665**	**8,942.8665**	**2.8923**		**9,015.1741**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0455	36.4419	10.3870	0.1053	2.4667	0.1152	2.5819	0.6752	0.1102	0.7855		11,757.1275	11,757.1275	1.2654		11,788.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1022	0.0600	0.7007	2.5000e-003	0.2794	1.8100e-003	0.2813	0.0741	1.6700e-003	0.0758		248.9581	248.9581	5.3300e-003		249.0913
Total	**1.1476**	**36.5019**	**11.0876**	**0.1078**	**2.7461**	**0.1170**	**2.8631**	**0.7494**	**0.1119**	**0.8612**		**12,006.0855**	**12,006.0855**	**1.2707**		**12,037.8540**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542		5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**		**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3193	10.6696	3.1820	0.0274	0.7284	0.0231	0.7514	0.2096	0.0220	0.2316		2,988.9546	2,988.9546	0.2520		2,995.2553
Worker	1.2791	0.7511	8.7724	0.0313	3.4986	0.0227	3.5213	0.9279	0.0209	0.9487		3,116.9548	3,116.9548	0.0667		3,118.6234
Total	**1.5984**	**11.4207**	**11.9544**	**0.0587**	**4.2270**	**0.0457**	**4.2727**	**1.1375**	**0.0429**	**1.1803**		**6,105.9093**	**6,105.9093**	**0.3188**		**6,113.8786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6754	26.5004	22.7971	0.0552		1.2335	1.2335		1.1542	1.1542	0.0000	5,289.5511	5,289.5511	1.5010		5,327.0750
Total	**2.6754**	**26.5004**	**22.7971**	**0.0552**		**1.2335**	**1.2335**		**1.1542**	**1.1542**	**0.0000**	**5,289.5511**	**5,289.5511**	**1.5010**		**5,327.0750**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3193	10.6696	3.1820	0.0274	0.7284	0.0231	0.7514	0.2096	0.0220	0.2316		2,988.9546	2,988.9546	0.2520		2,995.2553
Worker	1.2791	0.7511	8.7724	0.0313	3.4986	0.0227	3.5213	0.9279	0.0209	0.9487		3,116.9548	3,116.9548	0.0667		3,118.6234
Total	**1.5984**	**11.4207**	**11.9544**	**0.0587**	**4.2270**	**0.0457**	**4.2727**	**1.1375**	**0.0429**	**1.1803**		**6,105.9093**	**6,105.9093**	**0.3188**		**6,113.8786**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620		5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**		**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3002	10.0873	3.0681	0.0271	0.7283	0.0201	0.7484	0.2096	0.0192	0.2288		2,959.3179	2,959.3179	0.2437		2,965.4096
Worker	1.2120	0.6804	8.1749	0.0301	3.4986	0.0222	3.5208	0.9279	0.0204	0.9483		3,001.6036	3,001.6036	0.0606		3,003.1178
Total	**1.5122**	**10.7677**	**11.2430**	**0.0572**	**4.2269**	**0.0423**	**4.2692**	**1.1374**	**0.0396**	**1.1771**		**5,960.9215**	**5,960.9215**	**0.3042**		**5,968.5274**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3786	22.4149	22.4868	0.0553		1.0273	1.0273		0.9620	0.9620	0.0000	5,295.0161	5,295.0161	1.4983		5,332.4745
Total	**2.3786**	**22.4149**	**22.4868**	**0.0553**		**1.0273**	**1.0273**		**0.9620**	**0.9620**	**0.0000**	**5,295.0161**	**5,295.0161**	**1.4983**		**5,332.4745**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3002	10.0873	3.0681	0.0271	0.7283	0.0201	0.7484	0.2096	0.0192	0.2288		2,959.3179	2,959.3179	0.2437		2,965.4096
Worker	1.2120	0.6804	8.1749	0.0301	3.4986	0.0222	3.5208	0.9279	0.0204	0.9483		3,001.6036	3,001.6036	0.0606		3,003.1178
Total	**1.5122**	**10.7677**	**11.2430**	**0.0572**	**4.2269**	**0.0423**	**4.2692**	**1.1374**	**0.0396**	**1.1771**		**5,960.9215**	**5,960.9215**	**0.3042**		**5,968.5274**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407		5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**		**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2286	7.5929	2.8193	0.0263	0.7283	9.7600e-003	0.7381	0.2096	9.3300e-003	0.2189		2,870.6255	2,870.6255	0.2253		2,876.2580
Worker	1.1512	0.6176	7.6119	0.0289	3.4986	0.0218	3.5204	0.9279	0.0201	0.9479		2,886.3557	2,886.3557	0.0549		2,887.7279
Total	**1.3798**	**8.2105**	**10.4312**	**0.0552**	**4.2269**	**0.0316**	**4.2585**	**1.1374**	**0.0294**	**1.1669**		**5,756.9812**	**5,756.9812**	**0.2802**		**5,763.9859**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2182	20.5036	22.3426	0.0553		0.8978	0.8978		0.8407	0.8407	0.0000	5,301.4197	5,301.4197	1.4960		5,338.8203
Total	**2.2182**	**20.5036**	**22.3426**	**0.0553**		**0.8978**	**0.8978**		**0.8407**	**0.8407**	**0.0000**	**5,301.4197**	**5,301.4197**	**1.4960**		**5,338.8203**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2286	7.5929	2.8193	0.0263	0.7283	9.7600e-003	0.7381	0.2096	9.3300e-003	0.2189		2,870.6255	2,870.6255	0.2253		2,876.2580
Worker	1.1512	0.6176	7.6119	0.0289	3.4986	0.0218	3.5204	0.9279	0.0201	0.9479		2,886.3557	2,886.3557	0.0549		2,887.7279
Total	**1.3798**	**8.2105**	**10.4312**	**0.0552**	**4.2269**	**0.0316**	**4.2585**	**1.1374**	**0.0294**	**1.1669**		**5,756.9812**	**5,756.9812**	**0.2802**		**5,763.9859**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498		5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**		**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2209	7.4988	2.7589	0.0260	0.7283	9.5000e-003	0.7378	0.2096	9.0800e-003	0.2187		2,848.1754	2,848.1754	0.2215		2,853.7136
Worker	1.0977	0.5624	7.0784	0.0278	3.4986	0.0215	3.5201	0.9279	0.0197	0.9476		2,772.0096	2,772.0096	0.0498		2,773.2545
Total	**1.3185**	**8.0611**	**9.8373**	**0.0538**	**4.2269**	**0.0310**	**4.2579**	**1.1374**	**0.0288**	**1.1663**		**5,620.1850**	**5,620.1850**	**0.2713**		**5,626.9680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1031	19.1467	22.2819	0.0554		0.8012	0.8012		0.7498	0.7498	0.0000	5,307.7889	5,307.7889	1.4944		5,345.1497
Total	**2.1031**	**19.1467**	**22.2819**	**0.0554**		**0.8012**	**0.8012**		**0.7498**	**0.7498**	**0.0000**	**5,307.7889**	**5,307.7889**	**1.4944**		**5,345.1497**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2209	7.4988	2.7589	0.0260	0.7283	9.5000e-003	0.7378	0.2096	9.0800e-003	0.2187		2,848.1754	2,848.1754	0.2215		2,853.7136
Worker	1.0977	0.5624	7.0784	0.0278	3.4986	0.0215	3.5201	0.9279	0.0197	0.9476		2,772.0096	2,772.0096	0.0498		2,773.2545
Total	**1.3185**	**8.0611**	**9.8373**	**0.0538**	**4.2269**	**0.0310**	**4.2579**	**1.1374**	**0.0288**	**1.1663**		**5,620.1850**	**5,620.1850**	**0.2713**		**5,626.9680**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653		5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**		**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2151	7.4021	2.7241	0.0258	0.7283	9.2600e-003	0.7376	0.2096	8.8600e-003	0.2184		2,831.0115	2,831.0115	0.2183		2,836.4681
Worker	1.0518	0.5158	6.6032	0.0267	3.4986	0.0212	3.5198	0.9279	0.0195	0.9473		2,660.0562	2,660.0562	0.0455		2,661.1942
Total	**1.2669**	**7.9178**	**9.3273**	**0.0525**	**4.2269**	**0.0305**	**4.2574**	**1.1374**	**0.0284**	**1.1658**		**5,491.0677**	**5,491.0677**	**0.2638**		**5,497.6622**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9953	18.0659	22.1935	0.0554		0.7113	0.7113		0.6653	0.6653	0.0000	5,308.2249	5,308.2249	1.4909		5,345.4979
Total	**1.9953**	**18.0659**	**22.1935**	**0.0554**		**0.7113**	**0.7113**		**0.6653**	**0.6653**	**0.0000**	**5,308.2249**	**5,308.2249**	**1.4909**		**5,345.4979**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2151	7.4021	2.7241	0.0258	0.7283	9.2600e-003	0.7376	0.2096	8.8600e-003	0.2184		2,831.0115	2,831.0115	0.2183		2,836.4681
Worker	1.0518	0.5158	6.6032	0.0267	3.4986	0.0212	3.5198	0.9279	0.0195	0.9473		2,660.0562	2,660.0562	0.0455		2,661.1942
Total	**1.2669**	**7.9178**	**9.3273**	**0.0525**	**4.2269**	**0.0305**	**4.2574**	**1.1374**	**0.0284**	**1.1658**		**5,491.0677**	**5,491.0677**	**0.2638**		**5,497.6622**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2431					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1582**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0247	0.3165	1.2800e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		127.4787	127.4787	2.1800e-003		127.5333
Total	**0.0504**	**0.0247**	**0.3165**	**1.2800e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**127.4787**	**127.4787**	**2.1800e-003**		**127.5333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.2431					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1582**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0504	0.0247	0.3165	1.2800e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		127.4787	127.4787	2.1800e-003		127.5333
Total	**0.0504**	**0.0247**	**0.3165**	**1.2800e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**127.4787**	**127.4787**	**2.1800e-003**		**127.5333**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.4026					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**12.5734**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2117	0.1038	1.3291	5.3700e-003	0.7042	4.2600e-003	0.7085	0.1868	3.9200e-003	0.1907		535.4107	535.4107	9.1600e-003		535.6397
Total	**0.2117**	**0.1038**	**1.3291**	**5.3700e-003**	**0.7042**	**4.2600e-003**	**0.7085**	**0.1868**	**3.9200e-003**	**0.1907**		**535.4107**	**535.4107**	**9.1600e-003**		**535.6397**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.4026					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**12.5734**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2117	0.1038	1.3291	5.3700e-003	0.7042	4.2600e-003	0.7085	0.1868	3.9200e-003	0.1907		535.4107	535.4107	9.1600e-003		535.6397
Total	**0.2117**	**0.1038**	**1.3291**	**5.3700e-003**	**0.7042**	**4.2600e-003**	**0.7085**	**0.1868**	**3.9200e-003**	**0.1907**		**535.4107**	**535.4107**	**9.1600e-003**		**535.6397**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0770	11.5880	40.6149	0.1728	18.3078	0.1248	18.4327	4.8955	0.1157	5.0112		17,613.6098	17,613.6098	0.6921		17,630.9115
Unmitigated	3.0770	11.5880	40.6149	0.1728	18.3078	0.1248	18.4327	4.8955	0.1157	5.0112		17,613.6098	17,613.6098	0.6921		17,630.9115

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	80.91	68.25	87.00	230,121	230,121
Parking Lot	0.00	0.00	0.00		
Single Family Housing	2,360.00	2,457.50	2150.00	8,009,560	8,009,560
Total	2,440.91	2,525.75	2,237.00	8,239,681	8,239,681

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854
Parking Lot	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854
Single Family Housing	0.566758	0.042765	0.209365	0.107075	0.014132	0.005761	0.026332	0.018095	0.001807	0.001489	0.004961	0.000606	0.000854

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
NaturalGas Unmitigated	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	17674.6	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.1906**	**1.6288**	**0.6931**	**0.0104**		**0.1317**	**0.1317**		**0.1317**	**0.1317**		**2,079.3642**	**2,079.3642**	**0.0399**	**0.0381**	**2,091.7208**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	17.6746	0.1906	1.6288	0.6931	0.0104		0.1317	0.1317		0.1317	0.1317		2,079.3642	2,079.3642	0.0399	0.0381	2,091.7208
Total		**0.1906**	**1.6288**	**0.6931**	**0.0104**		**0.1317**	**0.1317**		**0.1317**	**0.1317**		**2,079.3642**	**2,079.3642**	**0.0399**	**0.0381**	**2,091.7208**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022
Unmitigated	10.9009	3.7633	22.2079	0.0236		0.3997	0.3997		0.3997	0.3997	0.0000	4,537.3576	4,537.3576	0.1224	0.0825	4,565.0022

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0584					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6281	0.2383	20.7079	1.1000e-003		0.1147	0.1147		0.1147	0.1147		37.3576	37.3576	0.0361		38.2610
Total	**10.9009**	**3.7633**	**22.2079**	**0.0236**		**0.3997**	**0.3997**		**0.3997**	**0.3997**	**0.0000**	**4,537.3576**	**4,537.3576**	**0.1224**	**0.0825**	**4,565.0022**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0584					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4125	3.5250	1.5000	0.0225		0.2850	0.2850		0.2850	0.2850	0.0000	4,500.0000	4,500.0000	0.0863	0.0825	4,526.7413
Landscaping	0.6281	0.2383	20.7079	1.1000e-003		0.1147	0.1147		0.1147	0.1147		37.3576	37.3576	0.0361		38.2610
Total	**10.9009**	**3.7633**	**22.2079**	**0.0236**		**0.3997**	**0.3997**		**0.3997**	**0.3997**	**0.0000**	**4,537.3576**	**4,537.3576**	**0.1224**	**0.0825**	**4,565.0022**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.01	36	903	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	0.0148	0.0663	0.0378	7.0000e-005		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003		7.5808	7.5808	1.0600e-003		7.6074
Total	**0.0148**	**0.0663**	**0.0378**	**7.0000e-005**		**2.1800e-003**	**2.1800e-003**		**2.1800e-003**	**2.1800e-003**		**7.5808**	**7.5808**	**1.0600e-003**		**7.6074**

11.0 Vegetation

EXHIBIT E

GHG CALCUALTIONS: DEIR PROJECT

Line (L)	Value	Unit
VMT Per Vehicle Type		
1	14,732,600	Project Total VMT (CalEEMod Output, Tbl. 4.2 Trip Summary)
Total Annual GHG Emissions		
2	246.37	Amortized Emissions (MT CO2e/year) from Construction (CalEEMod Output, Tbl. 2.1, Mitigated Construction [Calc: (Total Construction Emissions) / (30 years)])
3	4,860.44	Emissions (MT CO2e/year) from Operations (CalEEMod Output, Tbl. 2.2, Mitigated Operational)
4	5,106.82	Total Emissions (MT CO2e/year) from Construction + Operation
Total Emissions From Passenger and Light Duty Vehicles		
5	3560.2738	Mobile Emissions (MT CO2e/year) (CalEEMod Output, Tbl. 2.2, Mitigated Operational).
6	14,732,600	Project Total VMT (see L1)
7	97.08%	Passenger and Light-Duty VMT Fleet Mix
8	14,302,271	VMT from Passenger & Light-Duty Vehicles**** [Calc: (L6*L7)]
9	3,456.28	Passenger and Light Duty Vehicle Emissions (MT CO2e/yr) [Calc: (L5*L7)]
10	20,876.15	Passenger and Light-Duty Vehicle Emissions (Total lbs CO2e/day) [Calc: (L9 converted into lbs) / (365 days)]
11	989	Service Population (DEIR, p. 4.11-8 -4.11-10 [728 residents + 261 long-term jobs]).
12	21.11	Per Service Population Emissions (lbs CO2e/day/sp) [Calc: (L10/L11)]
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
13	14,302,271	VMT from Passenger & Light-Duty Vehicles**** (see L8)
14	39,184	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L13/365)]
15	989	Service Population (DEIR, p. 4.11-8 -4.11-10 [728 residents + 261 long-term jobs]).
16	39.62	Daily VMT Per Capita [(Calc: L14/L15)]

GHG CALCUALTIONS: SWAPE PROJECT

Line (L)	Value	Unit
VMT Per Vehicle Type		
1	15,815,577	Project Total VMT (CalEEMod Annual Output, Tbl. 4.2 Trip Summary)
Total Annual GHG Emissions		
2	304.889	Amortized Emissions (MT CO2e/year) from Construction (CalEEMod Output, Tbl. 2.1, Mitigated Construction [Calc: (Total Construction Emissions) / (30 years)])
3	7844.050	Emissions (MT CO2e/year) from Operations (CalEEMod Output, Tbl. 2.2, Mitigated Operational)
4	8,148.94	Total Emissions (MT CO2e/year) from Construction + Operation
Total Emissions From Passenger and Light Duty Vehicles		
5	5,289.68	Mobile Emissions (MT CO2e/year) (CalEEMod Output, Tbl. 2.2, Mitigated Operational).
6	15,815,577	Project Total VMT (see L1)
7	81.98%	Passenger and Light-Duty VMT Fleet Mix
8	12,966,100	VMT from Passenger & Light-Duty Vehicles**** [Calc: (L6*L7)]
9	4,336.64	Passenger and Light Duty Vehicle Emissions (MT CO2e/yr) [Calc: (L5*L7)]
10	26,193.60	Passenger and Light-Duty Vehicle Emissions (Total lbs CO2e/day) [Calc: (L9 converted into lbs) / (365 days)]
11	909	Service Population [648 residents + 261 long-term jobs]
12	28.82	Per Service Population Emissions (lbs CO2e/day/sp) [Calc: (L10/L11)]
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
13	12,966,100	VMT from Passenger & Light-Duty Vehicles**** (see L8)
14	35,524	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L13/365)]
15	909	Service Population [648 residents + 261 long-term jobs]
16	39.08	Daily VMT Per Capita [(Calc: L14/L15)]

GHG CALCUALTIONS: DEIR ALTERNATIVE 1

Line (L)	Value	Unit
VMT Per Vehicle Type		
1	8,218,460	Project Total VMT (CalEEMod Output, Tbl. 4.2 Trip Summary)
Total Annual GHG Emissions		
2	212.42	Amortized Emissions (MT CO2e/year) from Construction (CalEEMod Output, Tbl. 2.1, Mitigated Construction [Calc: (Total Construction Emissions) / (30 years)])
3	2,640.47	Emissions (MT CO2e/year) from Operations (CalEEMod Output, Tbl. 2.2, Mitigated Operational)
4	2,852.89	Total Emissions (MT CO2e/year) from Construction + Operation
Total Emissions From Passenger and Light Duty Vehicles		
5	1,905.27	Mobile Emissions (MT CO2e/year) (CalEEMod Output, Tbl. 2.2, Mitigated Operational).
6	8,218,460	Project Total VMT (see L1)
7	97.90%	Passenger and Light-Duty VMT Fleet Mix
8	8,046,249	VMT from Passenger & Light-Duty Vehicles**** [Calc: (L6*L7)]
9	1,865.35	Passenger and Light Duty Vehicle Emissions (MT CO2e/yr) [Calc: (L5*L7)]
10	11,266.83	Passenger and Light-Duty Vehicle Emissions (Total lbs CO2e/day) [Calc: (L9 converted into lbs) / (365 days)]
11	728	Service Population (DEIR, p. 4.11-8 -4.11-10 [728 residents]).
12	15.48	Per Service Population Emissions (lbs CO2e/day/sp) [Calc: (L10/L11)]
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
13	8,046,249	VMT from Passenger & Light-Duty Vehicles**** (see L8)
14	22,045	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L13/365)]
15	728	Service Population (DEIR, p. 4.11-8 -4.11-10 [728 residents]).
16	30.28	Daily VMT Per Capita [(Calc: L14/L15)]

GHG CALCUALTIONS: SWAPE ALTERNATIVE 1

Line (L)	Value	Unit
VMT Per Vehicle Type		
1	8,239,681	Alternative 1 Total VMT (CalEEMod Annual Output, Tbl. 4.2 Trip Summary)
Total Annual GHG Emissions		
2	251.004	Amortized Emissions (MT CO2e/year) from Construction (CalEEMod Output, Tbl. 2.1, Mitigated Construction [Calc: (Total Construction Emissions) / (30 years)])
3	4064.734	Emissions (MT CO2e/year) from Operations (CalEEMod Output, Tbl. 2.2, Mitigated Operational)
4	4,315.74	Total Emissions (MT CO2e/year) from Construction + Operation
Total Emissions From Passenger and Light Duty Vehicles		
5	2,812.46	Mobile Emissions (MT CO2e/year) (CalEEMod Output, Tbl. 2.2, Mitigated Operational).
6	8,239,681	Project Total VMT (see L1)
7	81.89%	Passenger and Light-Duty VMT Fleet Mix
8	6,747,376	VMT from Passenger & Light-Duty Vehicles**** [Calc: (L6*L7)]
9	2,303.09	Passenger and Light Duty Vehicle Emissions (MT CO2e/yr) [Calc: (L5*L7)]
10	13,910.81	Passenger and Light-Duty Vehicle Emissions (Total lbs CO2e/day) [Calc: (L9 converted into lbs) / (365 days)]
11	648	Service Population [648 residents]
12	21.47	Per Service Population Emissions (lbs CO2e/day/sp) [Calc: (L10/L11)]
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
13	6,747,376	VMT from Passenger & Light-Duty Vehicles**** (see L8)
14	18,486	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L13/365)]
15	648	Service Population [648 residents]
16	28.53	Daily VMT Per Capita [(Calc: L14/L15)]

SOURCES

**** **VMT from Passenger & Light-Duty Vehicles (Line 8)**

Land Use [a]	Mitigated Annual VMT [a]	Autos & Light-Duty Vehicles (LDA,	
		Fleet Mix % [b]	VMTs [c]
Project (DEIR Modeling)			
City Park	215,002	89.45%	192,311
Hotel	3,965,697	94.55%	3,749,479
Parking Lot	-	81.98%	-
Regional Shopping Center	3,261,164	98.31%	3,205,992
Single Family Housing	7,290,738	98.13%	7,154,489
Total	14,732,601		14,302,271
Alternative 1 (DEIR Modeling)			
City Park	215,002	89.45%	192,311
Parking Lot	-	81.98%	-
Single Family Housing	8,003,458	98.13%	7,853,937
Total	8,218,460		8,046,249
Project (SWAPE Modeling)			
City Park	242,638	81.98%	198,922
Hotel	4,126,201	81.98%	3,382,787
Parking Lot	-	81.98%	-
Regional Shopping Center	4,057,147	81.98%	3,326,175
Single Family Housing	7,389,591	81.98%	6,058,216
Total	15,815,577		12,966,100
Alternative 1 (SWAPE Modeling)			
City Park	230,121	81.89%	188,443
Parking Lot	-	81.89%	-
Single Family Housing	8,009,560	81.89%	6,558,933
Total	8,239,681		6,747,376

Notes:

[a] CalEEMod Output, Tbl. 4.2 Trip Summary Information

[b] CalEEMod Output, Tbl. 4.4 Fleet Mix

[c] Calculated: (Mitigated Annual VMT) x (LDA, LDT1, LDT2 Percentage)

EXHIBIT F

Daily VMT Per Capita from Passenger & Light-Duty Trucks , Exceedances under RTP/SCS Performance-Based SB 375 Target				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
Annual VMT from Auto & Light-Duty Vehicles	14,302,271	12,966,100	8,046,249	6,747,376
Daily VMT from Auto & Light-Duty Vehicles	39,184	35,524	22,045	18,486
Service Population	989	909	728	648
Daily VMT Per Capita	39.62	39.08	30.28	28.53
2016 RTP/SCS Benchmarks, SCAG-Wide				
22.8 VMT (2012 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
20.5 VMT (2040 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2016 RTP/SCS Benchmarks, Orange County				
23.8 VMT (2012 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.4 VMT (2040 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2020 RTP/SCS Benchmarks, SCAG-Wide				
23.2 VMT (2016 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.0 VMT (2045 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2020 RTP/SCS Benchmarks, Orange County				
24.1 VMT (2016 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
22.2 VMT (2045 Target) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**

EXHIBIT G

2017 Scoping Plan Daily VMT Per Capita						
	Orange County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	3,014,677	73,439,010.51	24.36	37,335,085	836463980.5	22.40
2011	3,048,756	72,952,632.49	23.928656	37,675,500	830878316.3	22.05354451
2012	3,083,962	72,809,424.22	23.609054	38,042,760	830337746.7	21.82643285
2013	3,110,678	73,936,152.01	23.768501	38,373,749	840871198.3	21.91266739
2014	3,138,057	75,077,954.67	23.924981	38,739,792	853163805.2	22.02293201
2015	3,162,622	76,236,897.10	24.105599	39,059,415	864904837.4	22.14331263
2016	3,179,122	77,413,083.97	24.350460	39,312,207	877259220.7	22.31518624
2017	3,200,748	77,453,485.08	24.198558	39,613,019	883246683.5	22.2968788
2018	3,220,451	77,046,076.80	23.924002	39,952,483	886442062.4	22.18740854
2019	3,240,543	77,671,929.66	23.968801	40,295,352	895760071.5	22.22986094
2020	3,260,012	77,221,308.98	23.687431	40,639,392	899639754.5	22.13713617
2021	3,278,907	77,557,880.24	23.653577	40,980,939	907695159.6	22.14920355
2022	3,297,193	78,093,224.94	23.684760	41,321,565	916010145.6	22.16784736
2023	3,315,412	78,812,919.33	23.771682	41,659,526	924184228.6	22.18422333
2024	3,333,220	78,168,945.26	23.451481	41,994,283	926776780.9	22.06911786
2025	3,350,668	77,530,647.43	23.138863	42,326,397	929443512.7	21.95895655
2026	3,368,151	77,556,376.65	23.03	42,655,695	935625476	21.93
2027	3,385,098	77,356,724.61	22.852137	42,981,484	941103616.1	21.89555894
2028	3,402,027	77,157,593.27	22.679889	43,304,691	946466378.4	21.85597811
2029	3,418,240	76,958,901.21	22.514189	43,624,393	951824304.7	21.81862576
2030	3,433,510	76,760,734.64	22.36	43,939,250	957178153.2	21.78
2031	3,448,755	76,563,020.40	22.200191	44,250,503	962634964.5	21.75421519
2032	3,463,669	76,180,561.65	21.994181	44,556,617	966669179.2	21.69530014
2033	3,477,453	75,799,948.78	21.797548	44,856,079	970549204.6	21.63696039
2034	3,490,848	75,421,204.05	21.605411	45,150,800	974456381.4	21.5822617
2035	3,503,764	75,044,338.26	21.418206	45,440,735	978834459.2	21.54090288
2036	3,515,779	74,669,363.64	21.238355	45,726,459	982654684.8	21.48984868
2037	3,527,482	74,296,270.22	21.062126	46,006,009	986515370.1	21.44318517
2038	3,538,293	73,925,063.60	20.892861	46,277,743	990422016	21.4016923
2039	3,548,859	73,555,744.07	20.726590	46,544,307	994375323.3	21.36405905
2040	3,558,071	73,188,299.82	20.569657	46,804,202	998382259.4	21.33103903
2041	3,566,593	73,370,054.53	20.571468	47,056,631	1005486536	21.36758444
2042	3,574,831	73,537,642.86	20.570942	47,303,447	1012555429	21.40553159
2043	3,582,260	73,690,505.05	20.570954	47,544,426	1019592191	21.44504156
2044	3,588,964	73,829,798.92	20.571340	47,778,649	1026624565	21.48709909
2045	3,595,128	73,955,599.49	20.571062	48,007,817	1033645439	21.53077359
2046	3,600,718	74,068,389.28	20.570450	48,230,450	1040686774	21.57738056
2047	3,605,116	74,166,531.65	20.572578	48,449,179	1047712443	21.62497828
2048	3,609,506	74,251,759.37	20.571169	48,663,583	1054739743	21.67410779
2049	3,613,049	74,323,940.64	20.570975	48,872,567	1061758598	21.72504256
2050	3,615,935	74,382,861.06	20.57	49,077,801	1068767247	21.78

EXHIBIT H

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
Annual VMT from Auto & Light-Duty Vehicles	14,302,271	12,966,100	8,046,249	6,747,376
Daily VMT from Auto & Light-Duty Vehicles	39,184	35,524	22,045	18,486
Service Population	989	909	728	648
Daily VMT Per Capita	39.62	39.08	30.28	28.53
2017 Scoping Plan Benchmarks, Statewide				
22.40 VMT (2010 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.93 VMT (2026 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
21.77 VMT (2050 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
2017 Scoping Plan Benchmarks, Orange County Specific				
24.36 VMT (2010 Baseline) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
23.02 VMT (2026 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
22.35 VMT (2030 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
20.57 VMT (2050 Projected) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**

EXHIBIT I

2017 Scoping Plan Total Daily VMT Per Capita Thresholds (Orange County)				
Year	**Population**	**Total VMT Baseline**	**VMT Per Capita**	**Threshold (-15%)**
2026	3,368,151	82,919,897	24.62	20.93
2030	3,433,510	82,483,181	24.02	20.42
2050	3,615,935	81,654,451	22.58	19.19

EXHIBIT J

Daily Residential VMT Per Capita from All Vehicles, Exceedances under 2017 Scoping Plan Performance-Based SB 743 Thresholds				
Sources	**Project**		**Alternative 1**	
	DEIR Modeling	**SWAPE Modeling**	**DEIR Modeling**	**SWAPE Modeling**
SFH Annual VMT	7,290,738	7,389,591	8,003,458	8,009,560
SFH Daily VMT	19,975	20,245	21,927	21,944
Service Population (residents)	728	648	728	648
SFH Daily VMT per Capita	27.44	31.24	30.12	33.86
2017 Scoping Plan Threshold, Orange County				
20.93 VMT (2026 Threshold) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
20.42 VMT (2030 Threshold) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**
19.20 VMT (2050 Threshold) Exceed?	**Yes**	**Yes**	**Yes**	**Yes**

EXHIBIT K

Project Purported Mitigated Emissions, Unmitigated v. Mitigated			
Operational Sources	**Emissions ($MTCO_2e/yr$)**		**Percent Reduction**
	Unmitigated	**Mitigated**	
Mobile	3,560	3,560	0.00%
Total	5,342	4,860	9.01%

Purported Mitigated Emissions, Project v. Alternative 1			
Operational Sources	**Mitigated Emissions ($MTCO_2e/yr$)**		**Percent Reduction**
	Project	**Alternative 1**	
Mobile	3,560	1,905	46.49%
Total	4,860	2,640	45.67%

Ramos, Ricky

From: Ben Rusk <info@magnoliatankfarm.com>
Sent: Friday, May 22, 2020 2:46 PM
To: jomalley@shopoff.com; MGregg@shopoff.com; info@MagnoliaTankfarm.com; marlo@nabermole.com; jeff.evans@me.com; Ramos, Ricky
Subject: New Support Letter for Magnolia Tank Farm

Mayor Lyn Semeta & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Semeta:

I am writing to express my full support for the Magnolia Tank Farm Specific Plan. As a resident of this community, I look forward to the transformation of this blighted property from its former use as an oil storage facility to a vibrant new mixed-use neighborhood. The revitalization of this property will dramatically improve the aesthetics and value of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star lodge to the city's existing inventory will bolster the city's vital tourism industry. The proposed trails, parks and restaurants will serve both new and existing residents.

The development envisioned in the Tank Farm Specific Plan will also serve as an economic engine for the city. The project will bring needed tax revenues and jobs to the city. All of this economic activity being generated from a parcel of land that for the last fifty years has been an eyesore to the community while generating virtually no tax revenue.

In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,

Ben Rusk
112 Via Antibes Apt B

Ramos, Ricky

From: Name Cheap <info@magnoliatankfarm.com>
Sent: Wednesday, September 16, 2020 3:32 AM
To: jomalley@shopoff.com; MGregg@shopoff.com; info@MagnoliaTankfarm.com; marlo@nabermole.com; jeff.evans@me.com; Ramos, Ricky
Subject: New Support Letter for Magnolia Tank Farm

Mayor Lyn Semeta & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Semeta:

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Sincerely,

Name Cheap
magnoliatank.farm@namechomp.tk
4600 East Washington Street

Ramos, Ricky

From: Benjamin Rusk <info@magnoliatankfarm.com>
Sent: Thursday, September 17, 2020 11:17 AM
To: jomalley@shopoff.com; MGregg@shopoff.com; info@MagnoliaTankfarm.com; marlo@nabermole.com; jeff.evans@me.com; Ramos, Ricky
Subject: New Support Letter for Magnolia Tank Farm

Mayor Lyn Semeta & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

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In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,

Benjamin Rusk
bdr560@truman.edu
9082 Bermuda Dr

Ramos, Ricky

From: Alexa Washburn <info@magnoliatankfarm.com>
Sent: Monday, December 21, 2020 3:24 PM
To: jomalley@shopoff.com; MGregg@shopoff.com; info@MagnoliaTankfarm.com; marlo@nabermole.com; jeff.evans@me.com; Ramos, Ricky
Subject: New Support Letter for Magnolia Tank Farm

Mayor Lyn Semeta & City Council
2000 Main Street
Huntington Beach Ca. 92648

RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mayor Semeta:

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In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,

Alexa Washburn
alexawashburn@gmail.com
222 North Singingwood Street, Unit 1

Switzer, Donna

From: Ann McCarthy <mccarthyhb@aol.com>
Sent: Thursday, January 7, 2021 8:37 PM
To: supplementalcomm@surfcity-hb.org
Subject: Support for Tank Farm Project

Council Members,

I am writing in support of the Tank Farm project that will be brought before you tonight. I am a local resident and live in the neighborhood immediately across Magnolia from the Tank Farm Project. I am also a 20+ year board member on the Huntington Beach Wetlands Conservancy.

In regards to the project and it's relationship to the wetlands, we have worked with Shopoff from the beginning of planning for the project. The project takes into all aspects of the wetlands in its layout, materials and how it relates to the wetlands. It, in fact, celebrates the wetlands and incorporates education into its common areas.

As a neighbor I have reviewed the current zoning and all possible uses. I believe that the change in zoning and the Shopoff project will benefit the neighborhood in a much more significant and positive way than any other feasible use in the current zoning.

I encourage you to approve this project.

Thank you,

Ann McCarthy
Resident
9192 Kapaa Dr.
Huntington Beach, CA 92646

Treasurer
Huntington Beach Wetlands Conservancy
www.hbwetlands.org

Ramos, Ricky

From: Josh Mallory <myvoice@oneclickpolitics.com>
Sent: Monday, January 11, 2021 12:49 PM
To: Ramos, Ricky
Subject: RE: Proposed Magnolia Tank Farm Specific Plan

Re: RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mr. Ramos,

I am writing to express my strong support for the Magnolia Tank Farm Specific Plan. As a resident of this community, I look forward to the transformation of this blighted property from its former use as an oil storage facility to a vibrant new mixed-use neighborhood. The revitalization of this property will dramatically improve the aesthetics and value of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star lodge to the city's existing inventory will bolster the city's vital tourism industry. The proposed trails, parks and restaurants will serve both new and existing residents.

The development envisioned in the Tank Farm Specific Plan will also serve as an economic engine for the city. In these times when city governments are searching for an economic boost, approving projects like this one is crucial to bringing much-needed tax revenues and jobs to the city. All of this economic activity would be generated from a parcel of land that for the last fifty years has been an eyesore to the community while generating virtually no tax revenue.

In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,
Josh Mallory
ocdad13@gmail.com
6771 Warner Ave Huntington Beach, CA 92647 Constituent

Ramos, Ricky

From: Mark Burdette <myvoice@oneclickpolitics.com>
Sent: Thursday, January 7, 2021 11:38 AM
To: Ramos, Ricky
Subject: RE: Proposed Magnolia Tank Farm Specific Plan

Re: RE: Proposed Magnolia Tank Farm Specific Plan

Dear Mr. Ramos,

I am writing to express my strong support for the Magnolia Tank Farm Specific Plan. As a resident of this community, I look forward to the transformation of this blighted property from its former use as an oil storage facility to a vibrant new mixed-use neighborhood. The revitalization of this property will dramatically improve the aesthetics and value of the southeast area of the city – the southern gateway to our community.

Redeveloping this property will result in a number of community and economic benefits. Adding a four-star lodge to the city's existing inventory will bolster the city's vital tourism industry. The proposed trails, parks and restaurants will serve both new and existing residents.

The development envisioned in the Tank Farm Specific Plan will also serve as an economic engine for the city. In these times when city governments are searching for an economic boost, approving projects like this one is crucial to bringing much-needed tax revenues and jobs to the city. All of this economic activity would be generated from a parcel of land that for the last fifty years has been an eyesore to the community while generating virtually no tax revenue.

In closing, the mixed-use neighborhood proposed for the Tank Farm property will produce countless and very important benefits for the city – significant new tax revenue, quality housing, support for the wetlands, and hundreds of jobs for Huntington Beach residents. I urge you to approve this most thoughtfully planned addition to the great City of Huntington Beach.

Sincerely,
Mark Burdette
theburdettes@mac.com
10181 Patch Drive HUNTINGTON BEACH, CA 92646 Constituent

January 5, 2021

The Honorable Kim Carr
Members of the City Council
Huntington Beach
Sent via e-mail

RE: SUPPORT FOR SHOPOFF REALTY PLANS FOR TANK FARM

Dear Mayor Carr:

I would like to express my support for Shopoff Realty Investments' proposal for homes and a lodge on the Tank Farm property in Huntington Beach. I am an advocate for responsible development, thoughtful planning and development projects that shed a positive light on the real estate development industry.

Shopoff is proposing a project that not only complements and provides suitable transitions to the existing surrounding land uses, but also improves the area by removing a blighted property and replacing it with uses that bring much-needed funds to the city as well as desperately needed housing options to the area. In this case, the plan places compatible housing next to existing residential. The lodge is placed near existing industrial uses and overlooking the wetlands separated with a large buffer to protect this resource while also promoting its educational value to residents and guests alike.

As the housing crisis in southern California continues, we are desperate for new housing—move-up opportunities for grown children moving back to their "hometown," expanding families needing a larger floor plan, and empty-nesters downsizing.

From an economic perspective, revitalization of the Tank Farm can only increase neighboring property values and provide a much-needed boost to Southeast Huntington Beach. And, of course, taxes generated will undoubtedly benefit the city's infrastructure, public safety and other city-funded needs; an economic boost to the city's coffers is desperately needed in these trying times.

In my opinion, this project will only provide positive changes to the area. I hope that you agree and vote YES when it is brought before you for approval.

Sincerely,

Nicole B

Nicole Burdette
10181 Patch Drive
Huntington Beach, CA 92646
Nburdette1978@icloud.com
714-329-3136

CC:
rramos@surfcity-hb.org
city.council@surfcity-hb.org
cfikes@surfcity-hb.org

January 2, 2020

Mayor Kim Carr
2000 Main Street
Huntington Beach, CA 92648

Dear Mayor Carr,

I am a resident of Huntington Beach and have been for my entire life. Over the years, I have purchased 3 homes, all here in the city. I currently reside in one of them near Main Street. The other I still own is near Pacific City. This area of town is special to all of us; coastal properties are special. Of the three homes I purchased, all are within the coastal zone and probably had to go through a tremendous amount of scrutiny before they were built. I'm glad they were!

I supported the Tank Farm project when it went before the planning commission in 2019. I support the plans now more than ever. Our city needs the jobs and economic boost this project can bring.

Projects in the coastal zone take so long to process as I saw with Pacific City and the hotels on PCH. Please approve this project and let's get this one moving and finished as well. I still believe homes are the best option for this property and the lodge is a bonus. I walk to the other hotels for lunch and dinner and will welcome another opportunity for this type of amenity for the neighborhood. I am confident the neighbors to this property will feel the same about this project once it's built. This is a good fit for the community.

Thank you,

Rami Naber

Rami Naber
415 Townsquare Lane
Huntington Beach, CA 92648